

UNIVERSITY OF KWAZULU-NATAL

Investigating the Effectiveness of the Contractor Development Programme in Road Construction Projects in the INK Area (Inanda, Ntuzuma, Kwamashu), Durban.

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DECLARATION

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ABSTRACT

The role played by the Construction Industry Development Board (CIDB) cannot be undervalued as it facilitates fairness and uniformity in construction procurement. This is achieved through transformation policies and other initiatives. The Contractor Development Programme (CDP) is one of the government initiatives intended to develop small contractors to sustainable companies. However, documented research indicates that the programme has been performing poorly due to implementation failures but there is little research that investigates contractor performance within the programmes. This research sought to investigate the challenges impacting on the performance of contractors within the Inanda, Ntuzuma and KwaMashu (INK) development programme. The intention was to understand the overall value add of the programme and realise areas that required attention. The dimensions used to measure contractor performance were, financial capacity, project performance and quality of work.

The quantitative method was used for this study and the sampling technique utilised was the purposive method. The programme had a population of 50 contractors and the sample size was 40. The response obtained was 38 participants, which translates to a response rate of 76%. The descriptive statistics was used to present the results, and the internal reliability of 0.772 was measured by Cronbach's alpha coefficient. Data was collected by in-house questionnaires, the researcher visited the participants at their training centre. The findings from this research showed that contractors were not improving in their financial position and project performance. In addition, this research revealed that poor regulation of the industry, contractor incompetency, lack of work opportunities and funding were the biggest hindrances for contractors' development. Therefore, based on the outcomes of this research, the researcher recommends that there should be stringent requirements associated with the selection of participants. The CIDB must enforce adherence to the competence criteria, otherwise programmes that do not abide should be penalized. Secondly, the programmes should focus on transferring technical knowledge to contractors, primarily practical skills in the form of artisanship. This can be achieved through collaborations with government and educational or training institutes. Finally, programmes must ring-fence work opportunities and find ways of ensuring contractors receive funding

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1 CHAPTER ONE: OVERVIEW OF THE STUDY

1.1. Introduction

Small contractors play a crucial role in fostering development in the formal and informal sector in South Africa, they serve an important driver in economic development. The objective of the Contractor Development Programmes (CDP) is to facilitate development of these small contractors to sustainable businesses. However, literature shows that programmes are not effective and inherently, it is expected that emerging contractors within the CDPs are not performing at project and business level. This research was carried out in order to investigate the challenges faced by small contractors within the INK (Inanda, Ntuzuma and KwaMashu) programme.

This chapter will provide background and context to the study. It will detail the problem statement, research objectives and a brief description of the research methodology that will be used. Furthermore, it will include the assumptions, delineations, and ethical behaviour. The chapter layout and summary will also be detailed.

1.2. Background and Context of the Study

The construction industry is significant as it contributes towards socio-economic development, it is the heart of infrastructure development and a significant source of employment (SEDA, 2011). Essentially, the expansion of the industry ensures continuous revolution of the human civilisation. It is therefore in the best benefit of the country to ensure that the industry grows its small contractors to self-sustained companies. However, according to literature there is delayed progression of small contractors due to factors beyond their control.

In a study by Sweis et al. (2014), in the Jordanian construction industry, the factors affecting contractor performance were financial difficulties, shortage of skilled labour, and too many change orders. The outcomes of the study agreed with the results of a three-year study of contractor performance in Japan, the UK, and the USA (Xia and Proverbs, 2007). Zulu and

Chileshe (2014) and Akali (2018) asserted similar findings in the Zambian and Kenyan construction industry, respectively, but discovered additional challenges such as technical and management skills shortage. Research shows that South African contractors encounter similar problems as other contractors over the world, especially in Africa. In a study by Worku (2016) conducted in Limpopo, the results showed that the success of emerging contractors is dependent on construction engineering and management skills, funding and networking.

The South African government initiated the Contractor Development Programme framework (CDP) in view of these challenges. The development of emerging contractors aimed to bring about economic prosperity of the country and advancement of small contractors, additionally, it intended to act as a vehicle towards achieving industry transformation and job creation for previously disadvantaged people (CIDB, 2011). The framework sought to provide work opportunities, financial assistance, construction related education and mentorship in the construction sector. Further to that, the government made allowance for small contractors to obtain work through preferential procurement, enterprise development and socio-economic development (CIDB, 2000).

However, literature on CDPs indicates that the programmes have not been effective. Lazarus (2007) found that the programmes encountered challenges, such as, lack of funding, no resources, poorly managed construction procurement and lack of management capacity as well as resources to equip managers to operate their business enterprises effectively and efficiently. In a study conducted by Construction Industry Development Board (2011), the research findings were similar to those of Lazarus, which included lack of programme implementation, procurement processes being erratic and somewhat rigid, challenges of mobilisation, lack of administrative resources and funding

Hadebe (2017) further indicated that contractors were not satisfied with their performance, growth and development. Participating contractors felt that they did not receive enough support, and in other instances, there was political interference in awarding of contracts. Unfortunately, programme implementers have not provided solutions to these challenges despite the importance of the CDP's in facilitating competency among emerging contractors.

1.3. Problem Statement

The CDP is not achieving the expected overall development of contractors (Hadebe, 2017). This is evident from the lack of progression of contractors from one grade to the next (CIDB, 2019). Institutional and implementation failures of the programmes have been studied extensively but there is a gap in literature pertaining to challenges impacting on the performance of contractors enrolled in the programme.

1.4. Research Objectives

1.4.1. Primary Objective

- i. To investigate the challenges that impact on the performance of contractors within the INK programme.

1.4.2. Secondary Objectives

- i. To describe the role played by the Contractor Development Programme,
- ii. To identify challenges experienced by contractors in achieving financial capability,
- iii. To identify challenges experienced by contractors in achieving project performance,
- iv. To identify challenges experienced by contractors in achieving quality,
- v. To provide recommendations on how to deal with challenges of the Contractor Development Programme.

1.5. Research Questions

- i. What is the role of the Contractor Development Programme?
- ii. What are the challenges experienced by contractors in achieving financial capability?
- iii. What are the challenges experienced by contractors in achieving project performance?

-
- iv. What are the challenges experienced by contractors in achieving quality?
 - v. How can the Contractor Development Programme deal with challenges encountered?

1.6. Research Methodology

The quantitative research method will be applied in this study. Data collection will involve gathering primary data by questionnaires and the researcher will administer the process in person. The questions will be set out in a 5-point Likert scale, respondents will rate their responses from “1-strongly agree, 2-agree, 3-neutral, 4-disagree and 5-strongly disagree”. There will be a total number of 23 questions seeking to understand the views and experiences of participants in the contractor development programme.

The researcher will use the purposive sampling method and participants will be selected based on their commitment to the programme. Contractors who have missed less than 4 classroom training will be targeted. The population of the programme is 50 contractors and the portion of the population that is targeted is 40 contractors, ranging from CIDB grade 1 to 3.

The study setting will involve visiting respondents at the training centre in KwaMashu. The survey will be conducted before a study session. Contractors will be notified of the survey prior to undertaking this survey. The notification will be done through emails and text messages by the course facilitator.

The data will be analysed SPSS statistical analysis software and the descriptive statistical method. Cronbach’s alpha will be used to measure internal consistency of the questionnaire. Graphs and Tables will be used to present the results. Recommendation and conclusions will be made based on the analysis.

1.7. Assumptions

- All contractors enrolled in the CDP are registered with the Contractor Industry Development Board.
- Participants reside within the INK area.

1.8. Delineations

This research focuses on emerging contractors, between grade 1 and 3, registered with the INK programme. The programme incubates contractors from both Civil Engineering (CE) and General Building (GB) disciplines.

1.9. Ethical Considerations

Ethical issues are part of any research and it is particularly important to address them when the study objects are humans. Informed consent will be sought from the study participants. The consent form will address the terms of participation and rights of the respondents. Data collected will be kept confidential to safeguard participants against any possible seclusion in the programme.

For the purpose of confidentiality for both participants and the INK programme, the names and contact details of those who contributed to the success of this research will not be included. Their information was used solely for the benefit of this research and this will be communicated to all parties involved.

1.10. Chapter Layout

Chapter 1: Overview of the Study

Chapter one includes the introduction, problem statement, purpose of the study, research questions, objectives, delineations and assumptions.

Chapter 2: Literature review

Chapter two include reviewing of existing literature. The literature review draws attention to the South African construction industry, the history of Contractor Development Programme, introduces the National Contractor Development Framework, Contractor Development Programme failure and the key factors linked to contractor success. This chapter also provides definitions and regulations put in place to assist emerging contractors in South Africa.

Chapter 3: Methodology

Chapter three is concerned with the methodology applied in conducting the research along with the process followed in gathering the empirical data. This chapter also highlights the ethical issues that needed consideration when gathering the data.

Chapter 4: Results

This chapter outlines the findings from the empirical study. This chapter demonstrates the relationships between the competence criteria and performance.

Chapter 5: Conclusion, Limitations, and recommendations

This chapter provides the summary of the research, the conclusion and recommendations.

1.11. Chapter Summary

This chapter highlighted the need to undertake this study and introduced the contractor development concept. The problem statement and objectives of the study were defined and the proposed method of undertaking the study was specified.

2 CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

The literature review plays a significant role to this research as it offers a base into small contractor development programmes. The effectiveness of contractor development programme is defined in this chapter. Content covered also give context to the CDP, such as, economic outlook of South Africa, characteristics of the industry, historical overview and the National Contractor Development Programme Framework. This chapter further identifies the benefits and shortcomings of the programme.

The researcher also reviewed legislations pertaining to the research topic and provides definitions for the terms associated with the Contractor Development Programme, such as; Construction Industry Development Board Grading, Small, Medium to Micro-enterprises, Emerging Contractor, Government Institutions, State-Owned Entities and Procurement Strategies.

2.2. Contractor Performance Defined

It is important to define “contractor performance” in line with this research in order to draw a link between the research topic and the objectives. The dictionary definition of performance is “the ability of performing a task or function” (Cambridge Dictionary, 2020). In the context of this research, contractor performance can be quantified or measured by the positive change in the contractor’s financial capacity, project performance and quality of work (CIDB, 2019).

It is easier to describe the functions that lead to improved performance of contractors using the logic framework. This model outlines the value chain process that improves the performance of contractors, which include; inputs, activities, outputs, outcomes, and impact. The quality of the process has an impact on intended benefit of the programme. Table 2.1 displays the process of CDP; the model shows the interrelated components required for the success of the programme.

TABLE 2.1: LOGIC MODEL FOR CONTRACTOR DEVELOPMENT PROGRAMME (CIDB, 2011)

| Inputs | Activities | Output | Outcomes | Impact |
|--|---|--|--|---|
| <ul style="list-style-type: none">• Mentors• Course trainers• Technology• Facilities• Time | <ul style="list-style-type: none">• Classroom training• Mentorship• Work opportunities• Assist with funding• Partnerships | <ul style="list-style-type: none">• Financial capacity• Project performance• Quality of work | <ul style="list-style-type: none">• Increased success rate of the programme• Employable contractors• Increased income generation | <ul style="list-style-type: none">• Competent contractors• Increased competitiveness in the industry• Overall success of industry |

The outputs, which are used as a measure of contractor performance, are defined as follows;

- The financial capacity of a contractor refers to the company's annual turnover, largest single contract and the available capital. The contractor is expected to satisfy these three financial elements according to CIDB guide. This is detailed in section 2.11.3 under Table 2.4 in this research.
- Performance is measured by how well the project is managed, which is more likely to have a big impact on the financial status of the project. The two components of project performance are on-time and on-budget delivery of the project.

It is easier to measure performance if there are no external factors affecting the goal post, such as delays by the client and increased scope. The measures affecting performance are as follows;

- Poor project preparation, planning and implementation, and delays in execution of work
- Delay in supply of material
- Resource constraints; funds, employees, plant
- Technical incompetency
- Labour unrests
- The quality of work quality is defined as the value of work delivered, this is inclusive of task completion, interactions and the quality of the deliverables. In order to achieve quality, the process from managing of the programme, the project and the vendors, need to be properly managed.

2.3. Contractor Development Programme Framework

The Contractor Development Programme aims to address 3 key challenges faced by small contractors, namely, access to work opportunities, improving the business environment and offering training & advisory services (CIDB, 2011). This initiative was created primarily for previously disadvantaged individuals to participate in building the economy. This inclusiveness promotes transformation and reduces unemployment.

The framework, in figure 2.1, provides clients with a standardized guide to achieve the objectives of the programme (NCDP, 2011). It is specifically applicable to Grade 2 to 6 contractors with experience and excludes newly established contracting enterprises, but clients can apply it to other grades where they deem it appropriate (CIDP, 2011).

The selection of small contractors includes construction management qualification, experience in construction-related works, financial status and socio-economic factors. Each contractor's level of development is assessed by South African Construction Excellence Model (SACEM) to meet the minimum admission requirements of the programme. There is a stipulated period of three years that the contractor is allowed to participate in the programme, during this time they receive appropriate support, such as assistance to get funding and the necessary training. These efforts are aimed at addressing financial capability issues, managerial issues and administrative skills. The programme budget determines how many contractors can be absorbed into the programme.

During the period of three years, the programme provides mentorship. The mentors set performance criteria for quality standards (CIDB, 2011). Contractors receive guidance and advice in areas in which they need to improve their competency. The development of technical, managerial, administrative, commercial and business skills becomes the responsibility of the mentor and the key staff members. The Department's risk is minimised as the programme because it is the mentor's responsibility reduce non-performance and equip contractors with the necessary tool sets to overcome business impediments.

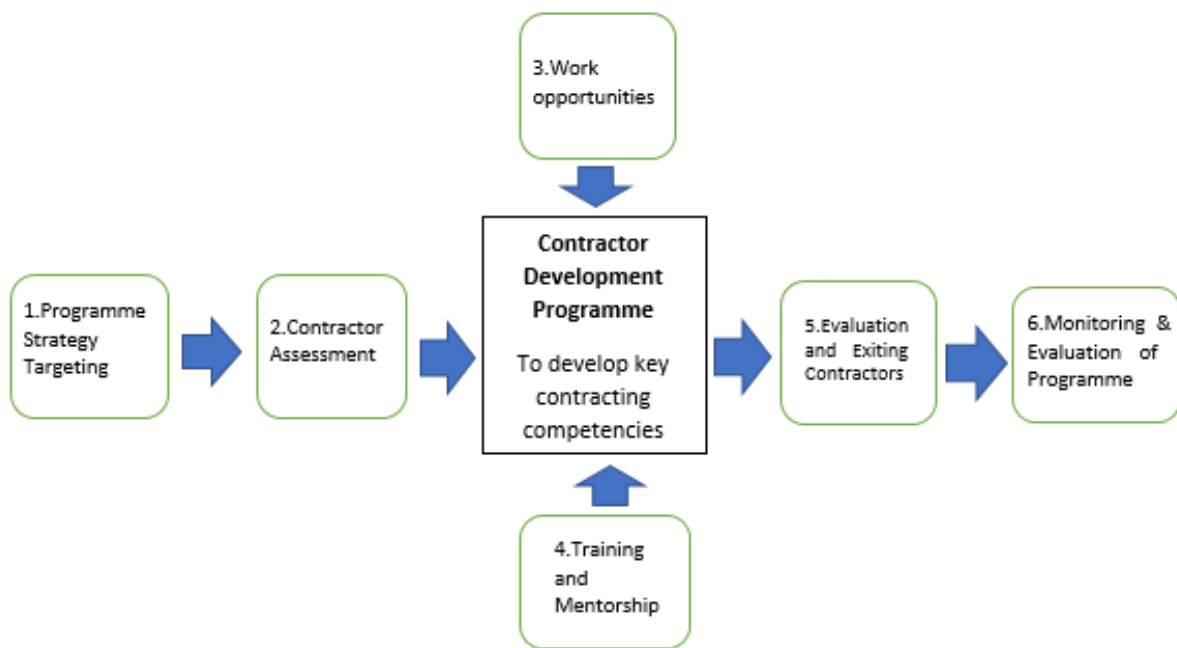


Figure 2.1: National Contractor Development Programme (CIDB, 2009)

According to Hove (2016), no one model for contractor development fits different categories. There are 3 appropriate models catering to contractors according to their development level, namely;

- Emerging Contractor Development Programmes: this group is for grades 2 to 3 emerging contractors; the programme incorporates formal business and technical training. Furthermore, contractors are provided with a mentor for development and support.
- Enterprise Development Programmes (EDPs): this model is meant for grades 3 to 6 who show the potential to grow, and
- At grade 4 to 7 the programmes focus on performance improvement.

2.4. Definitions and Contextualisation

2.4.1. Emerging Contractor

Construction Industry Development Board Act 38 of 2000 characterizes an emerging contractor as a business which belongs to a historically disadvantaged individual. To this day, the industry has not completely transformed, there are still socio-economic factors, such as

funding and skills, affecting the growth and development of emerging contractors. The term “small contractor” has been used interchangeably with “emerging contractor” in this research.

2.4.2. Organisation of Choice

The organisation groups contractors in terms of their experience, CIDB grading and financial status.

Outreach Programme: this is the phase of developing emerging contractor start-ups which include CIDB grade 1. Contractors are incubated for 6 months and are then graduated into the next phase. The aim of this programme is to assist newly established contractors with no experience and qualification related to construction.

Pre-Development Programme: at this stage contractors expand their work force and there is noticeable growth for the company as they increase their operations. The technical system and financial growth are relatively stable. The target is contractors with CIDB grades 2.

Mainstream Programme: this phase of development deals with best practice systems, which are health and safety, environmental management and quality management. The target is contractors with a CIDB grade of 3 to 5

2.4.3. Construction Industry Development Board Grading

The CIDB grading is the assignment of contractor designations in terms of their financial capability and works that the contractor has undertaken. The financial strength is measured by the company’s historic turnover and available capital to sustain the contract (CIDB, n.d).

The works capability is based on the largest contract completed by the contractor within 5 years. The table below indicates the different designation levels and value of work they can qualify for;

TABLE 2.2: CIDB GRADING (SOURCE: CIDB, 2011)

| Designations | Upper limit of tender value range | Best annual turnover | Largest single contract | Available capital |
|--------------|-----------------------------------|----------------------|-------------------------|-------------------|
| 2 | R 650 000 | - | R 130 000 | - |
| 3 | R 2 000 000 | R 1 000 000 | R 450 000 | R 100 000 |
| 4 | R 4 000 000 | R 2 000 000 | R 900 000 | R 200 000 |
| 5 | R 6 500 000 | R 3 250 000 | R 1 500 000 | R 650 000 |
| 6 | R 13 000 000 | R 6 500 000 | R 3 000 000 | R 1 300 000 |
| 7 | R 40 000 000 | R 20 000 000 | R 9 000 000 | R 4 000 000 |
| 8 | R 130 000 000 | R 65 000 000 | R 30 000 000 | R 13 000 000 |
| 9 | No limit | R 200 000 000 | R 90 000 000 | R 40 000 000 |

2.4.4. Small, Medium to Microenterprises

The Department of Small Business Development classify companies in terms of revenue generation and full-time equivalent of paid employees, this is defined in accordance to National Small Enterprise Act. The classification of companies is related to sectors, the construction industry defines the following SMMEs as follows:

Micro-enterprise: The turnover of this business is less than R10 million per year and they are usually not registered with the relevant structures. Amongst other, they include, taxi businesses, spaza shops, rental business. According to Department of Small Business Development (2015), these businesses employ less than 5 people.

Small enterprise: The business generates revenue of R75 million a year and employ about 50 employees.

Medium enterprise: The maximum number of employees is 250 for the construction sector. These enterprises make a turnover of less than R170 million a year (Department of Small Business Development, 2015).

TABLE 2.3: THE NEW NATIONAL SMALL ENTERPRISE ACT THRESHOLD (SOURCE: DEPARTMENT OF SMALL BUSINESS DEVELOPMENT, 2015)

| Sector or sub-sectors in accordance with the Standard Industrial Classification | Size or class | Total full-time equivalent of paid employees | Total annual turnover |
|--|----------------------|---|------------------------------|
| Construction | Medium | 51-250 | ≤ 170,0 million |
| | Small | 11-50 | ≤ 75,0 million |
| | Micro | 0-10 | ≤ 10,0 million |

In context of this research, the enterprise category that the CDP relate to is the Micro-enterprise. In terms of the Sector Code of Good Practice issued under the Broad-Based Black Economic Empowerment Act (2017), the classification equates to the enterprise category “Exempt Qualifying Enterprise” (EQE).

The EQE is classified in terms of the total turnover less than R10 million and grading of 6 and less. Furthermore, the EQE has to be from a historically disadvantaged background. This definition is all encompassing in terms of race and turnover.

2.4.5. Government Institutions and State-Owned Entities

Government is an institution that has been assigned to make regulations on behalf of the citizens and ensure the well-being of citizens is put first. The degree of power entrusted to these institutions vary from national to municipal level. The different types of government institutions that exist are National, Provincial and Municipal.

2.4.6. Preferential Procurement Strategies for small contractors

The role of the Construction Industry Development Board is to manage and regulate the construction sector. The contractor development programme is one of the ways in which CIDB opens up opportunities for developmental objectives of emerging contractors (CIDB, 2012).

There are ways in which the emerging contractors are prioritised for development, which include;

- i) **Contract Participation Goals (CPG's):** The B-BBEE and small contractor development policies are the cornerstone for this procurement system. The main contractors is obliged to contract with targeted enterprises to meet the targets set by government institutions. The main contractor can participate in the government's commitment to achieving empowerment objectives through committing to perform beyond the set targets. Most government contracts express CPG as 30% of the tender value, excluding contingencies and escalations, for works above R10 million (CIDB, 2017).
- ii) **Community Development Work (CDW):** Provision is made in contract documents for main contractors to manage work that are specifically within the local community area. The main contractor will be measured against the following duties:
 - (a) Mentorship to subcontractor(s),
 - (b) Administrative support,
 - (c) Supply of resources to complete the contract that the selected subcontractor(s) cannot provide cost-effectively,
 - (d) Performance Security in the name of the selected subcontractor(s), and
 - (e) Secure adequate insurance cover for the cost of the works and public liability.

2.5. Policies and Legislations Governing the NCDP

2.5.1. Constitution of the Republic of South Africa Act (No. 108 of 1996)

According to CIDB (2011), the Republic of South Africa Act (No. 108 of 1996) prompted the formation of the Preferential Procurement Policy Framework Act 2000(PPPFA). The Act defines the approach to procurement and provides for the advancement and protection of Historically Disadvantaged Individuals (HDIs). Section 217, states that “when organs of the state enter into a contract for the provision of goods and services, this must be done in accordance with the system that is fair, equitable, transparent, competitive and cost effective”.

The Constitution further expresses that an organ of the state can actualize an acquisition strategy accommodating protection and headway of people or classes of people hindered by unfair segregation.

2.5.2. Preferential Procurement Policy Framework Act of 2000 (PPPFA)

The Preferential Procurement Policy Framework Act of 2000 (PPPFA) was created to specifically give preference to "Historically Disadvantaged Individual (HDI)" in the procurement processes.

Historically Disadvantaged Individual is defined as;

- “who, due to the apartheid policy that had been in place, had no franchise in national elections, prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No 200 of 1993) ('the Interim Constitution"); and/or
- “who is a female; and/or”
- “who has a disability”

2.5.3. Broad-Based Black Economic Empowerment Act (No. 53 of 2003)

BBBEE or B-BBEE was established to empower economically excluded groups. This initiative came into effect in 2003/2004, expanding from narrow-based black empowerment which led to the advancement of few previously disadvantaged individuals. The narrow-based empowerment only made provision of equity ownership and management representation. The BBBEE is broad and covers a wide spectrum ranging from “ownership, management control, employment, skills development, preferential procurement, enterprise development, socio-economic development, and qualifying small enterprises.”

2.5.4. Construction Industry Development Board Act (No. 38 of 2000)

The CIDB Act (No. 38 of 2000) stipulates that “CIDB has a mandate to implement an integrated strategy for the reconstruction, growth and development of the construction industry and to provide for matters connected therewith.”

The CIDB Act (No. 38 of 2000) has been entrusted to restructure the construction industry. They have a mandate is to develop integrated strategies, grow and development plans to provide solutions connected to:

- “sustainable growth of the construction industry and inclusive participation” and
- “may monitor national programmes aimed at, amongst others—promotion of the emerging sector.”

2.6. Motivation for Contractor Development Programme

The apartheid system enabled the then ruling party (National Party) to endorse the Population Registration Act, which organised citizens into their racial groupings. In line with the Act, the government imposed the Group Areas Act of 1950 which separated ethnic groups by zones of dwelling, and later introduced the Bantu Self-Government Act of 1959 (Ginidza, 2015). The Bantu Self-Government Act of 1959 deprived Africans the rights to white owned states. It allowed the government to handle the black population as foreigners and banned them from political participation. Essentially this Act legalised economic inequality and to this day, poverty brands the black population and wealth is associated to whites.

The legacy of apartheid is evident in the economic disparity between races. About 64.2% of black people live below the upper bound poverty lines compared to 1% of whites (Stats SA, 2017). The statistics further indicate that on average blacks earn R 2 900, 00 which is about 22.8% of white’s income (Stats SA, 2017). This clearly shows the ideology of apartheid to divide and dominate worked. Years later after the ban of the apartheid the current government is recreating the institutions to advance the historically disadvantaged groups.

To change the racial economic segregation resulting from apartheid in South Africa, the ruling government presented various reforms trying to guarantee comprehensive economy (Mparadzi, 2014). Such instruments are looking to change the impacts on historically disadvantaged

groups. The transformation framework includes policies, procedures, plans and projects of activities.

2.7. Emerging Contractors in Emerging Economies

Small contractors are essential in emerging economies as they create jobs and contribute towards economic growth. In a study conducted in Ghana in 2016, the construction sector employed about 2% of the youth and provided more training and apprenticeship opportunities than any other sector (Owusu, 2012; GSS, 2013; Darko and Löwe, 2016). The country utilized 90% small contractors and local resources, and interestingly, for the past two decades Ghana is recorded as one of the fastest growing economies in West Africa (Darko and Löwe, 2016). Anaman and Osei-Amponsah (2007), found that there is a link between the growth in the construction industry and the growth in the macro-economy of Ghana. The research findings ascertained that the construction industry can lead the entire economy. Similarly, in 2003 the Zambian construction industry recorded 8% contribution towards the GDP and an employment increase from 140,000 in 2000 to 150,000 in 2001 due to the increase in emerging contractors (Hove, 2016). It is evident that there is a need for small contractors as they contribute towards the expansion of emerging economies.

2.8. Emerging Contractors in South Africa

The contribution of the main construction industry accounts for only 4% of gross domestic product (gdp) which is relatively small compared to other industries. In the Small Medium Micro-Enterprises sector it is the 3rd largest contributor out of the nine sectors (CIDB, 2018) and in comparison to large contractors, small contractors contribute about 70% to job creation (SEDA, 2018). The high employee absorption rate can be attributed to the number of SMMEs in the construction industry, there are more small contractors than large contractors thus giving them the power to completely change the dynamics of job creation (SEDA, 2018). This is an indication that SMMEs are important for the country's growth, more so, when it comes to job creation.

Additionally, SMMEs play a particularly important role in developing countries as they drive inclusive economic growth (World Bank, 2008). About 50% to 80% of the work awarded to large contractors is sub-contracted to historically disadvantaged enterprises (National Treasury, 2019). This supports the initiatives aimed at increasing black participation and poverty alleviation.

2.9. Characteristics of the South African Construction Market

Literature shows that competition in the markets translate into industry growth and development of the country (Qaqaya and Lipimile, 2008). In a competition market companies are forced to be innovative, price fairly and provide quality services and products, which benefits both businesses and employers.

Migration of the construction industry's major players was prompted by international trade and the quest by countries with sufficient non construction resources to satisfy their construction requirements.

Unfortunately, developing countries are vulnerable to anti-competition as big organisations with significant market power often control the industry with experience and resources. It is even more difficult for small companies to be sustainable when big establishments have government backing. In the interest of growth, it is important for developing countries to have policies in place that restrict such practises.

South Africa's construction industry is predominantly based on free market principles. It is governed by the Competition Act of 1988, which ensures fairness, anti-competitive conduct, and restrictive practices (Department of Trade and Industry, 1998). This Act guards against abuse of dominance, such as, price fixing, predatory pricing and collusive tendering. Furthermore, it promotes transformation in a country where there is an unequal distribution of wealth.

Another characteristic feature of the construction industry is the price preference in the tendering process. Most government institutions impose a high scoring for price in their tender documents, a low tenderer offer takes first preference (CIDB, 2011). This allowance is advantageous to contractors with financial muscles and resources, of which, it is one of the

adversities for small contractors. Well-established companies can afford to price lower because they already have internal resources, whereas, small contractors need to account for outsourcing. Unfortunately, this price preference forces small contractors to under-price with the intention to build the employment record (CIDB, 2018).

Therefore, in order to ensure that emerging contractors have a chance to grow, the government initiated the Preferential Procurement Policy (PPP). The policy promotes and supports the growth of small contractors by placing preference on historically disadvantaged individuals. The role of the CDP is to minimise the skills gap and ensure that emerging contractors are able to run projects successfully. There are currently 927 emerging contractors enrolled in 25 programmes in South Africa with the hope of being transformed into big businesses.

2.10. Benefit of Contractor Development Programmes

A big benefit of CDPs is job creation. The expanded public works programme (EPWP's) infrastructure sector is responsible for measuring the number of jobs created through the CDPs. Construction projects are supposed to be registered with Public Works, a department which oversees implementation of contractor development programmes. The Expanded Public Works programme was introduced in 2003 for poverty relief through more jobs for the unemployed. The creation of jobs is dependent on temporary projects carried out by contractor (Public Works, 2004). The program is focused on closing the existing skills gaps and unemployment, which is beneficial for workers as they gain skills that they can use in the workforce.

In terms of statistics, the recent evaluation of the programmes indicated that EPWP achieved just under 50% of their work opportunities targets (Public Works, 2017). This implies that the CDPs are not performing as they should because EPWP results are consequential of CDP's. However, eThekwin Municipality was amongst the cities that achieved more than 50% of their targets, coming in at 68%. Most work opportunities were created through the Zibambele programme, and second to that, most were created through the EPWP itself (Public Works, 2017).

2.11. Causes for Poor Performance of Contractor Development Programme

The distribution of contractors in the discipline of Civil Engineering (CE) and General Buildings (GB) show that a significant number of contractors are concentrated at the lower grading levels. Figure 2.2 shows that about 63% of registrations are in grades 2 to 4 account in the total registrations, whereas the number of registrations in grades 7 to 9 account for around 12% (CIDB, 2019).

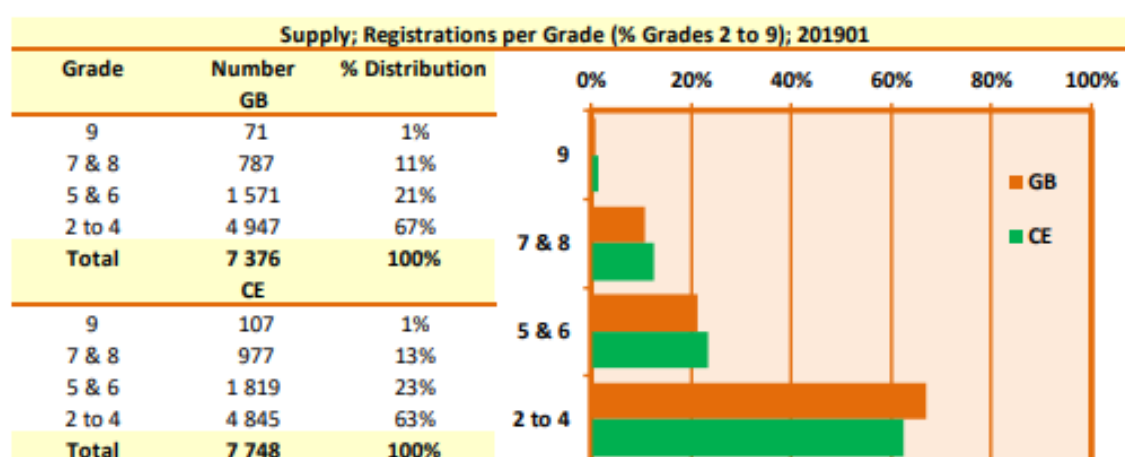


Figure 2.2: Supply-Registration per Grade (% Grade 2 to 9) (Source: CIDB, 2019)

The distribution of registrations per grade indicate that it is difficult for small contractors to move up the grades. There is a linear decline in the total number of registrations from grade 1 to grade 9.

Figure 2.3 shows that between 2015 and 2018, CDP contractor registrations showed notable growth in the lower grades of CE, from grade 2 to 4 being the most improved. About 49% of CE contractors that were within this grade, or had participated in the CDP for 3 years upgraded within grade 2 to 4 status. Figure 2.2 and figure 2.3 indicate a similar trend between contractors in the main stream and in the CDP, in CE. The number of participating contractors continue reducing with CIDB grading.

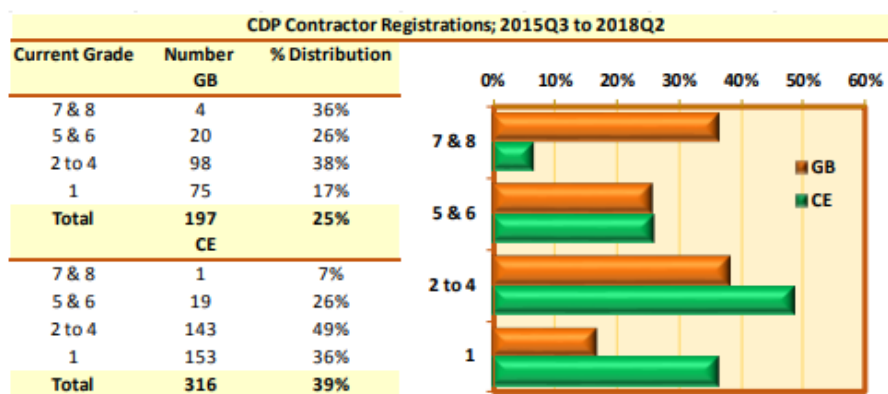


Figure 2.3: Contractor Development Registrations; 2015Q3 to 2018Q2 (SOURCE: Construction Monitor, 2019)

Literature has found that the primary reasons behind the delayed progression of small contractors are beyond their control (CIDB, 2018). In a baseline study for provincial contractor development programmes (2011), ten programmes were evaluated for effectiveness and it was found that programmes were performing poorly in many areas. The success measures of the programmes were as follow:

- Demand control - ensuring sufficient availability of work for contractors,
- Concentrating on the selection criteria of participants and ensuring focus on the target group,
- Demand side intercessions, for example, execution ensures, session of agreements, instalment cycles, and contracting alternatives and benchmarks development archives,
- Ensuring there are strategies that deal with over-supply and under-supply of contractors,
- Providing training and mentorship that is accredited by Sectoral Education and Training Authority (SETA) ,
- Assisting contractors with funding and work opportunities, and
- Access to technology, development industry information and help of business systems,

The results from the study indicated that most of these programmes were not effective, the research found internal malfunctions of the programmes, of which some of the elements of failure could be fixed with the appropriate institutional structures, mentorship & training, and

constant monitoring and evaluation. However, some challenges were somewhat beyond the control of programme implementers. Challenges encountered were;

- Programmes became job-creation initiatives with no long term sustainability impact,
- Non-use of uniformly accepted industry performance standards,
- Lack of use of preferential procurement,
- The quality of mentoring and training provided was erratic,
- Lack of contractor assessment tools in place, and
- Lack of funding and work opportunities,

2.12. Factors Linked to Programme Success

2.12.1. Contractor Competency

According to Lim and Mohamed (1999), success factors are influences that contributes to the success or failure of a project. It is mainly the internal enterprise elements that impact on financial stability, performance and quality of any project. According to Ali (2018), the costs associated with the contractor's lack of financial, physical and human resources are exorbitant. The common mistakes include under budgeting, execution of works and poor scheduling of works, in the ranking order. Evidently, there is a need to ensure the skills of emerging contractors are developed.

McCutcheon and Croswell (2001) state that continuous training and work opportunities are important for small contractors as it facilitates progression and sharpening of skills through practice. It is highly likely that emerging contractors will go out of business if there is scarcity of work and/or are incompetent. Mahembe (2011) equally proclaims that lack of skills in the industry links to very low survival rate in the South Africa's SMME sector. McCutcheon and Croswell (2001) advise that the benefit of development programmes has not been achieved because contractors do not receive the necessary funding, training and consecutive contracts, and regrettably, the time and money invested in businesses get lost. This is asserted by CIDB (2017), contractors have not been able to expand their experience, technical and contractual knowledge because of the lack of work opportunities, training and funding.

2.12.2. Work Opportunities

The construction industry suffered a 70% loss of work opportunities across all grades in 2018 (CIDB, 2018). The industry is mostly capital-intensive and the economic fluctuations affect the demand (Adams, 1995). The situation was worsened by the dependence on public clients, the majority of work opportunities for small contractors come from state owned organisations by means of preferential procurement (CIDB, 2017).

The Preferential Procurement Regulations 2017 stipulates that state contracts above the value of R30 million must have 30% of the work set aside for subcontracting to targeted enterprises and groups (CIDB, 2011). About 50% to 80% of the total spent on grade 7 and above is subcontracted to small contractors (National Treasury, 2018). This indicates that there is a substantial work share that goes towards emerging contractors, however, due to persisting economic decline in the industry, the CDPs have been negatively affected.

According to Dapaah, Thwala and Musonda (2016), the economic downfall over a 20-year period forced many contractors to downgrade their grading status. In 2018, the CIDB affirmed similar findings. Research indicated that the pace at which contractors develop has slowed down from small and medium-size contractors to large contractors. In 1999, the construction industry was one of the most profitable industries with a 35% contribution towards the GDP (Ntuli and Allopi, 2013). In 2008 the industry improved slightly for the preparation of the 2010 World Cup but after that it declined again (Gasa, 2011).

2.12.3. Training and Mentoring

According to the CIDB (2018), one of the major constraints for the development of emerging contractors in 2018 was the lack of technical expertise. Ntuli and Allopi (2013) stated that these challenges are attributable to the industry entry structure, which places no barriers on the educational level. In sight of these challenges, the contractor development programme compensates for the poor educational background and lack of managerial exposure by offering training and mentorship. The programme framework makes provision for technical and managerial skills of emerging contractors (CIDB, 2009).

The Construction Education and Training Authority (CETA) is responsible for education and training in the construction sector for building, civil engineering and related activities (CETA, 2004). The CETA is authorised by the Education and Training Quality Assurance to accredit training and ensure motivated contractors are developed, and that their skills are recognised in terms of the National Qualifications Framework (NQF). People who have acquired skills through working in the industry but do not have formal training are put through the Recognition of Prior Learning (RPL) assessment process, of which when they prove competent are awarded with a certificate in order to enable them to compete for jobs that require some form of qualification. Mentors are required to be registered as mentors with the Council of Project and Construction Management Professionals (Lazarus, 2007).

The role of the INK programme is to offer training in health and safety, contract management, conditions of contract law, quality, skills development, employment practices, business management and technical skills. The skills acquired should assist contractors in business management, building and construction works management (operational and supervision) and legislative issues.

The role of a mentor is important in influencing the journey of a contractor towards development and being able to operate without constant need for assistance or support. The construction industry has been transforming, there is a greater need to have well-rounded contractors who are knowledgeable in business management, project management and contract law. The role of the mentor is essential in preparing contractors for the mainstream industry. Mentors are meant to ensure that contractors are well equipped and adaptable to the construction practise.

2.12.4. Access to Funding

Inadequate access to credit is the lowest of the three constraints to business growth and mostly affects grade 3 and 4's (CIDB, 2018). The CDP does not provide funding to emerging contractors but provides assistance when contractors apply for funding with bank institutions. Whether contractors qualify or not is based on the company's financial profile, as per the bank's requirements. Most SMMEs fail within 2 years because of funding (Nieman and Nieuwenhuizen, 2009).

2.13. Selection of Contractors

According to Gasu (2011), the empowerment of emerging contractors begins with understanding the level of training required by contractors. The education should prepare contractors for the mainstream industry, the training should be both theoretical and practical. This is particularly important for CDPs because the construction industry allows anyone to start construction companies, even those without the technical knowledge. Unfortunately, research has shown that non-exclusivity works against the development of the industry. There is a high probability of contractor failure if they do not possess construction related qualifications or experience. In order to ensure programme success, the CDP requires contractors to meet the minimum competence criteria.

Pre-qualification into any programme is a standard practice across the world, it is particularly important for contractor development programmes to evaluate participants for competence or worthiness in order to ensure there will be returns on investment. The contractor development programme's competence criterion is based on CIDB grading, experience and qualification. Emerging contractors are expected to have basic understanding of construction management and must have done work that qualifies them to be grade 2 or above. Table 2.4 referenced below is used as a guide to qualify contractors into the programme and table 2.5 is used for scoring.

Table 2.4: Competence (SOURCE: CIBD, 2011)

| Category | Grade | NQF | Minimum Qualification for Building and construction management and for building and construction technology | Minimum Experience |
|-----------------------|--------|-----|---|--------------------|
| GB: General Building | 5 & 6 | 5 | <ul style="list-style-type: none">• Diploma or National Certificate; or• CETA accredited RPL Certificate | 5 years |
| CE: Civil Engineering | 2 to 4 | 4 | <ul style="list-style-type: none">• National Certificate; or• Industry recognised CETA accredited training programme | 3 years |

The CIDB grading is based on the financial capabilities and evidence of completed projects conducted by the contractor during the application process.

Based on table 2.4, CIDB formulated a competence rating system. Contractors are scored on experience and qualification, as shown in table 2.5. The scoring helps programme implementers to understand the level of training required by the contractor.

Table 2.5: Competence Rating (Source: CIDB, 2011)

| Description | Scoring |
|---|---------|
| Contractor possessing the required qualification and minimum experience | 2 |
| Contractor possessing the minimum experience but without the required qualification | 1 |
| Contractor possessing the required qualification but without the minimum experience | 0 |
| Contractor without the required qualification and experience | -1 |

2.13.1.1. The effect of construction experience on contractors' competitiveness

The CIDB grading and construction experience can be considered to mean the same thing. Most often than not, contractors who are grade 2 and above have more construction experience than grade 1 contractors. It is therefore expected that contractors with a higher CIDB grading will perform better than contractors with a lower grading.

Fu, Drew and Lo (2010), measured the relationship between bidding competitiveness, learning and experience as a means to prequalify contractors into development programmes. The results showed that contractors who bid more frequently secured more work and over time increased their CIDB status. This showed a relationship between higher CIDB grading and competitiveness.

This was also observed amongst grade 1 contractors, it was found that contractors who dedicated 80- 100% of their time to their business had a higher chance of winning work, with twice as many having carried out a project over the last five years (CIDB, 2015).

2.13.1.2. The effect of personal experience on contractors' competitiveness

Most grade 1 construction companies have key personnel with reasonable educational background, some work experience in the industry but little construction skills and training (CIDB, 2015). According to CIDB (2015), research indicated that contractors felt there was more needed to learn about the industry before entry. Contractors believed work experience would provide them with tacit knowledge. Schijve (2016) defines tacit knowledge as knowledge and skills obtained through learning by doing.

However, in a study by Muzondo (2015), it was uncovered that contractors who had key staff with work experience performed poorly. This was observed especially with contractors who did not have qualifications. Tacit knowledge cannot prepare a person for starting their own business. He proclaims that a person can be a good employee but not necessarily a good entrepreneur. In business, especially when starting up, owners perform different tasks, some of which they have never performed.

2.13.1.3. The effect of qualifications on contractors' competitiveness

Walker (2019) defines projects management as “The use of resources in the company on a certain activity within time, cost and performance”. Construction management is tailored specifically to construction related disciplines. It is concerned with coordination and control of the important elements in a construction project in order to achieve project objectives in an efficient manner.

According Najmi (2011), the construction management qualification is more vital than ever. Over the years, the industry has become more competitive to a point that experience alone is not sufficient. In a study done on successful and unsuccessful projects in the USA and the UK, the findings showed that one of the major contributions to good performance, faster and lower cost, were contractual arrangements (Nahapiet & Nahapiet, 1985; Mbanjwa, 2003). Key

personnel who possessed construction management qualifications were seen to provide clients with regular and detailed information on the cost implications, engineering decisions, and flexibility to implement changes without delay or difficulty.

Ntuli and Allopi (2013), in a study they conducted on small contractors indicated that the lack of construction education appeared to be one of the main limitations to their development. The research established that contractors who had no construction related education struggled the most, this was asserted by a study done by CIDB (2015). There was little correlation between the level of education and sustainability in business but there was more correlation between the contractor having construction-related training or qualifications and their staying in business.

2.14. Chapter Summary

The chapter outlined the fact that the South African Government views the construction industry as the driver of public infrastructure and creation of job opportunities. Historical significance of establishment of contractor development programme was established and the framework was detailed. This chapter also discussed the benefits of CDPs, and the causes of failure of the programmes.

The factors linked to key performance indicators were discussed and key development indicators were also discussed and contextualised to this study. Lastly, and in particular to this study, the chapter discussed legislations governing, and for formulation, of contractor development programme. Relevant definitions and contextualisation related to this research were discussed.

3 CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

The previous chapter outlined the measures for investigating contractor performance within the INK development programme. The literature also explored challenges impacting on the performance of contractors.

This chapter focuses on the research philosophy, research design, research approach, population and sample, Measurement Instruments, data collection, Research Procedure, Data Analysis and Ethical Consideration.

3.2. Research Design

There is a plethora of research designs that can be employed to examine any subject. However, the research objectives should always guide the process of determining the relevant research design. Research design is crucial in research as it is the core organ of every study and without a proper design the objective of the study would not be achieved (Hadebe, 2017). According to Adom and Hussein (2018), the research design is a conceptual framework that guides the direction of the research. Simply put, it is the blueprint of the research which outlines all the necessary stages to complete the study, such as literature review, collection, measurement and analysis. This research outline followed a logical sequence.

The structure of this study followed a set of logical steps. At the onset, relevant literature of the contractor development programmes and contractor performance was reviewed. The review of literature was a continuous process throughout the undertaking of this study. The second stage was instrument construction and data collection, of which the study utilised questionnaires. This was in line with the nature of the study. Finally, the researcher analysed the data using the SPSS software and descriptive statistical method.

3.3. Population and Sample

It is important for the researcher to understand the population before collecting the data. The sample size generalises the characteristics of the whole population, the views represented by the sample represents the views of everyone (Draugalis and Plaza, 2013). If there is a relatively large population the researcher is not under pressure to find a large sample size, however, in the case where the population is small the researcher needs a relatively high percentage of respondents to eliminate biasness (Saunders, Lewis, and Thornhill, 2016). According to Research Advisors (2006), the required sample size for a population of 50 with a margin of error of 5% should be 44 participants.

The total population in the INK programme was 50 participants and the sample of size of 40 participants was considered but a total of 38 respondents were available.

3.4. Sampling Technique

The quantitative research methodology was adopted for this research. This type of approach is associated with the positivist/postpositivist paradigm (Bless, Highson-Smith and Kagee ,2006). The decision to use the quantitative method was based on its objective nature. It is more focused on the goal to solve the research problem.

The purposive sampling technique was therefore employed to carry out this research. According to Draugalis and Plaza (2013), the purposive sampling technique is a selective method which adopts a non-probability identification of participants. The researcher needs to have prior knowledge of the study sample to be able to choose the participants.

The main factor that motivated for the use of purposive sampling technique was the number of active participants in the programme. The population in the programme was is relatively small and the researcher wanted a particularly informative group that can provide accurate feedback. The Programme Facilitator advised the Researcher that the programme only had 40 active participants. The programme considered contractors who had missed more than 3 consecutive learning sessions as inactive. It was therefore in the best interest of the researcher to target the active participants.

3.5. Profile of the sample

The composition of the respondents selected for the purpose of study represents 38 contractors, of which 21% are female and 79% are male. The CIDB Grading at intake for the sample was distributed as 74% of respondents were grade one contractors, 13% were grade two and 13% were grade three. There was a 50% split between contractors who possessed the construction management qualification. In terms of the highest educational levels of the respondents, the distribution indicated that 39% of respondents possessed short course certificates, 29% had matric certificates, 28% possessed diplomas and 18% had basic education.

3.6. Measurement Instrument

The measurement instrument is the tool which the researcher uses to collect data (Kirshenblatt-Gimblett, 2006). There are several measurement instruments that can be used depending on the nature of the research. However, it is important for the researcher to align the research instrument with the nature of the study. Different instruments can be adopted based on whether the research is quantitative or qualitative.

This research made use of in-house questionnaires which is consistent with the quantitative study. According to Gasa (2011) a questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents. Questionnaires are preferable as they are relatively quick, simple to carry out and are the best way to obtain views of a large crowd (Draugalis and Plaza, 2013). There are various ways in which a survey questionnaire can be carried out, which include self-administered, telephone, computer or post.

The questionnaires for this research comprised of closed-ended questions. A closed question is usually answered with a single word or short phrase. Literature was explored sufficiently before drafting the questions for the questionnaire. The questions were divided into four sections namely screening, programme, contractor performance and the challenges faced by contractors.

The opinions of the contractors were rated based on the 5-point Likert scale. The Likert scale measures the participant's opinions on a series of statements from opposite extremities (Saunders, Lewis, and Thornhill, 2016). The Likert scales can range from five, seven, or nine points, depending on the level of depth required from participants. In the 5-point Likert scale

the respondents are required to rank their responses from 1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree and 5-Strongly Disagree. This method was the most preferred because it enabled the respondents to rank their experience about the CDP based on how intensely they felt. The frequencies and percentages were reported in graphs.

3.7. Research Procedure and Data Collection

The location used for the survey was the programme centre, the researcher visited the participants at their training centre in KwaMashu. Participants were surveyed before their training session. The researcher explained what the study was about and elaborated on the structure of the questionnaires before participants provided answers. Contractors were requested to first sign the consent form and the researcher clarified the contents of the form.

Respondents had been in the programme since February of 2019 and expected to exit in February 2020. Essentially, at the time of this study, participants were nine months into the programme. No late entrants were allowed into the programme and therefore, there was confidence that contractors had been exposed to the same content and opportunities in the programme.

The self-administered questionnaire survey was adopted based on the advantages that a representative sample would be realised with little time or costs. The respondents were assured of anonymity which in turn helped them to be honest in their answers. These factors made this method more advantageous compared to the other methods available. It is important to build trust with the respondents because the data collected can either enable the researcher to address the problem effectively, or not (Kirshenblatt-Gimblett, 2006).

3.8. Data analysis

3.8.1. Descriptive Analysis

Descriptive statistics helps describe, show or summarize data in a meaningful way such that, for example, patterns might emerge from the data (Heale and Twycross, 2015). However, the descriptive statistics analysis cannot be used to make conclusions beyond the data analysed or

reach conclusions based on hypotheses. This type of data analysis is important as it simplifies raw data to visual graphs and tables.

The descriptive statistical analysis was the basis for this research and Statistical Package for the Social Sciences (SPSS) version 26.0 was utilised for coding. Data was simplified easy to interpret results. The results were summarised and presented by graphs from Microsoft Excel software. The respondents were profiled in terms of gender, education level, type of education, personal experience, construction experience, and contractor grading.

3.8.2. Cronbach Alpha Coefficients

Reliability is related to the uniformity of a measure. The responses of a respondent follow a similar logic or pattern (Hatala and Cook, 2019). The Cronbach's alpha measures the consistency of the results in a set of items (Heale and Twycross, 2015). If a respondent has varying responses and not consistent, the reliability may be questioned. This test is applied in an instrument with questions more than 2. The Cronbach's alpha gives a number between 0 and 1. An acceptable reliability score is one that is 0.7 and higher and anything below that may be questionable, poor, or unacceptable.

3.9. Ethical Considerations

The researcher chose not to disclose the names of contractors and the state organ used for the study for the sake of their confidentiality. The information obtained during research was used solely for the research and that was communicated to all parties involved. There was no sharing of information even with the institution that was used for the study. The participants were assured that information obtained from this research would not have potentially negative consequences.

The researcher obtained ethical clearance letter from the institution being investigated before doing this research. All codes of ethical conduct were followed from the start of the research to the finish.

Another important issue that the researcher considered was informed consent. The participants were made aware that participation in the study was voluntary, and that the participants could

disengage at any point of the survey if they felt uncomfortable. The researcher addressed the informed consent issue by written forms. The participants were given the forms to sign and their rights were declared in the forms.

3.10. Chapter Summary

This chapter discussed relevant methodology critical in resolving the research problem. The quantitative research design was explained and the way in which the information was obtained. The chapter discussed the target population for the study, relevant sampling methods and the data gathering method. Pre-testing method was done to ensure validity of survey.

4 CHAPTER FOUR: RESULTS

4.1. Introduction

This chapter presents the analysis of the data collected. The demographics and results are detailed in this section.

The Cronbach's alpha was used to measure the internal consistency in questionnaires.

4.1.1. Response Rate

Various studies describe an acceptable response rate by different standards. However, even with differing opinions the general guideline for small audiences is a response rate of 80% (Carley-Baxter, 2009). Most researchers emphasize that when the sample size is small it is important to compensate the low coverage with a high response rate.

The survey response rate is reliant on a number of factors and it is expected that the sample size will not match the response rate. It was therefore important for the researcher to influence the participation by applying appropriate methods. For this study the researcher worked closely with the training facilitator to encourage the sample group to participate, this was achieved through broadcasting in class, text messages and emails. Zuniga (2004) emphasise the importance of sending reminders and persuading respondents that their responses are of great value. In this research the researcher achieved response rate of 76%.

4.2. Profile of the Sample

Contractor profiles were coherent with the objectives of the research. The researcher outlined the following items: gender, CIDB grading at intake, education type, education level and personal experience related to the construction industry. The researcher used graphs to exhibit the demographics of respondents.

4.2.1. Gender Distribution of the Sample

Figure 4.1 indicates that there were more men (79%) compared to women (21%), of which this representation was expected. To this day, the construction industry is still male dominated (CIDB, 2018).

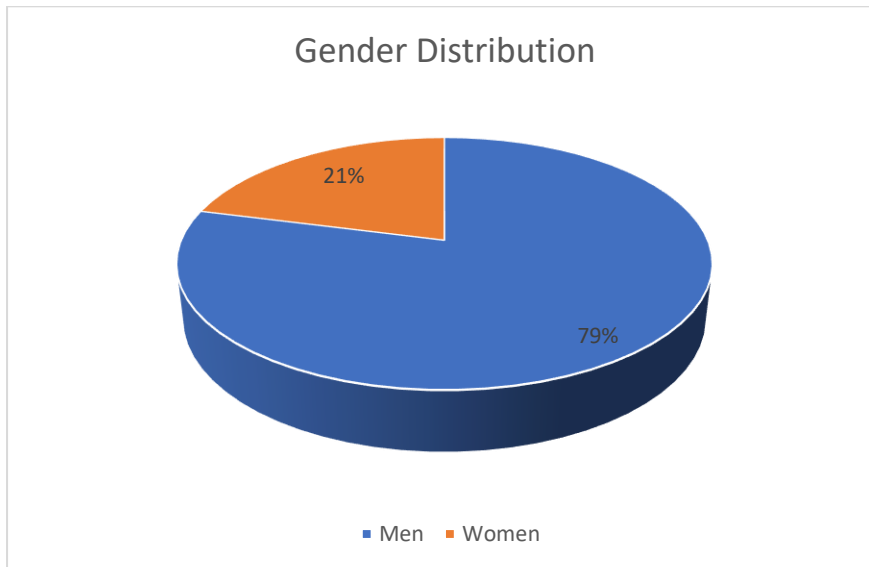


FIGURE 4.1: GENDER DISTRIBUTION

4.2.2. CIDB Grading at Intake

Figure 4.2 below shows the contractor grading at the time of intake, there were more contractors at the grade 1 level than grade 2 and 3. Grade 1 contractors contributed 74% of respondents while grade 2 and 3 had an equal distribution of 13% each. Interestingly, this distribution is coherent with literature studies; CIDB has shown that the dispersion of contractor registrations is high at the grade 1 level and declines with increasing grades. There are always ambitious contractors who enter the market because of relative easiness of entry but struggle to make it past the one-year mark (CIDB, 2015).

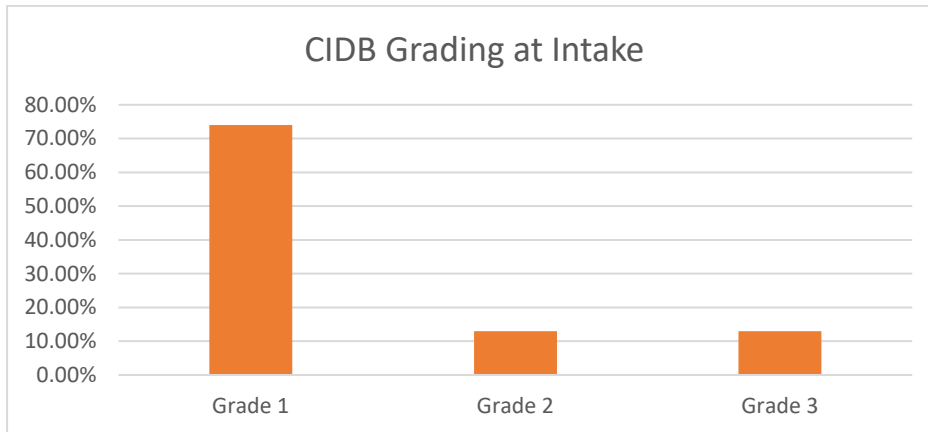


FIGURE 4.2: CIDB GRADING DISTRIBUTION AT INTAKE

4.2.3. Construction Management Qualification

Figure 4.3 indicates the proportion of contractors who possessed the construction management qualification, there was an even split (50/50) between those who had the qualifications and those who did not. This indicates that half of the respondents already had the knowledge of business management and understanding of the role played by CDP.

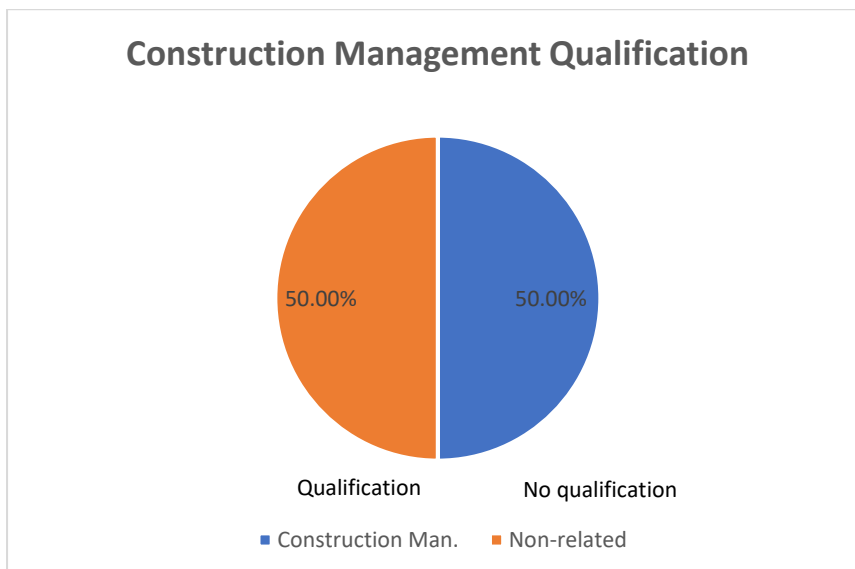


FIGURE 4.3: PROPORTION OF CONTRACTORS BY CONSTRUCTION MANAGEMENT QUALIFICATION

4.2.4. Educational Level

Figure 4.4 shows the distribution of education by levels, a vast majority of respondents had NQF Level 4 certificates followed by diplomas, matric certificates, and lastly basic education. Based on the distribution of highest education, this indicated that the majority of respondents were able to understand the language used in the questionnaire and terms associated to construction.

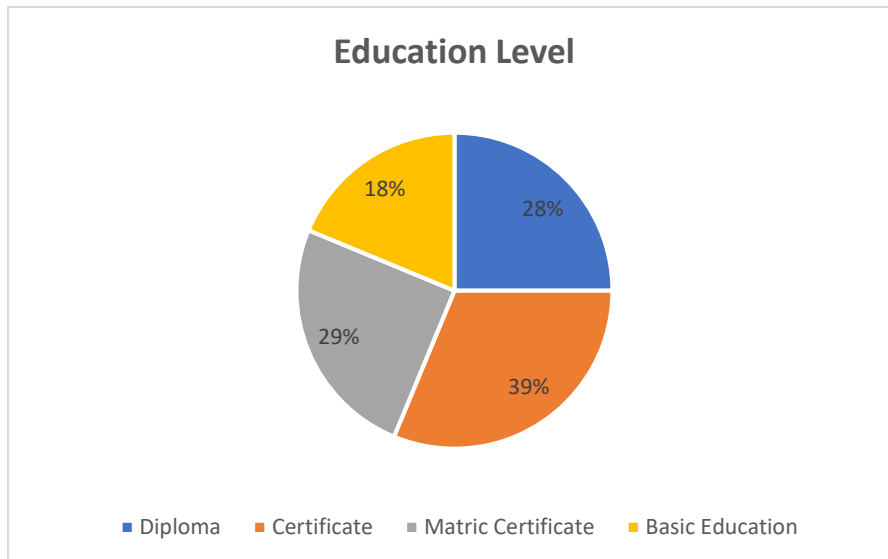


FIGURE 4.4: PROPORTION OF CONTRACTORS BY EDUCATIONAL LEVEL

4.2.5. Personal Experience

Figure 4.5 shows the proportion of personal experience in the construction industry, more than half (63%) of emerging contractors had prior experience related to construction, either as employees or unregistered emerging contractors.

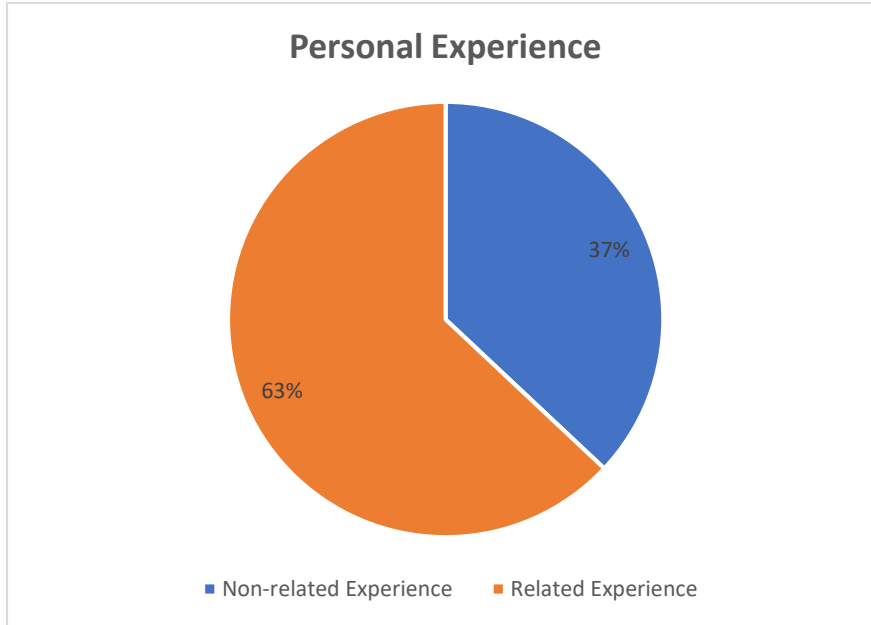


FIGURE 4.5: CONTRACTORS WITH AND WITHOUT PERSONAL EXPERIENCE

4.2.6. Distribution of Personal Experience

Figure 4.6 shows the distribution of personal experience. The graph indicates that, on average, contractors had 6 years of personal experience in the construction space. On the two extremes, the minimum experience is 2 years and the maximum is 35 years.

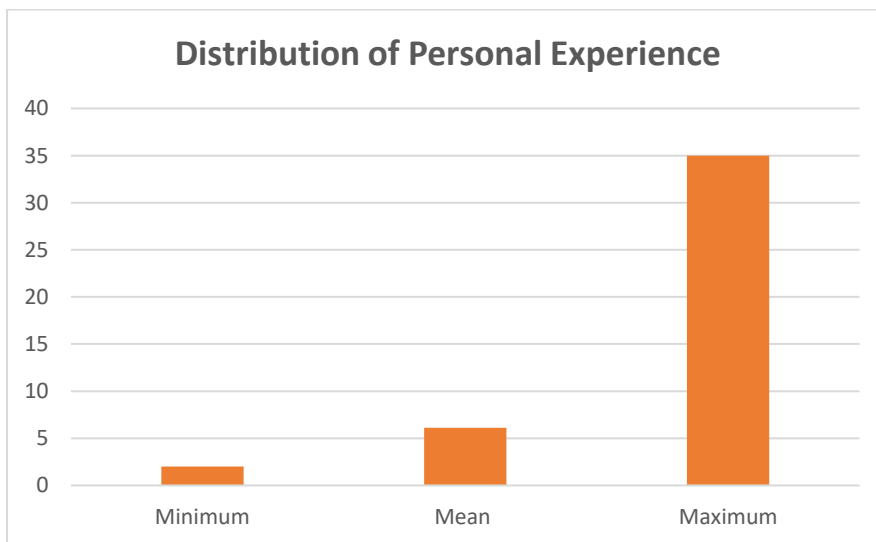


FIGURE 4.6: DISTRIBUTION OF PERSONAL EXPERIENCE

4.2.7. Distribution of Construction Experience

Figure 4.7 indicates the distribution of construction experience as contractors, about 50% of contractors had construction experience of 2 years, followed by contractors with experience between 3 and 4. These results are consistent with graph 4.2; the deficiency of construction experience affirms that there are more grade 1 contractors.

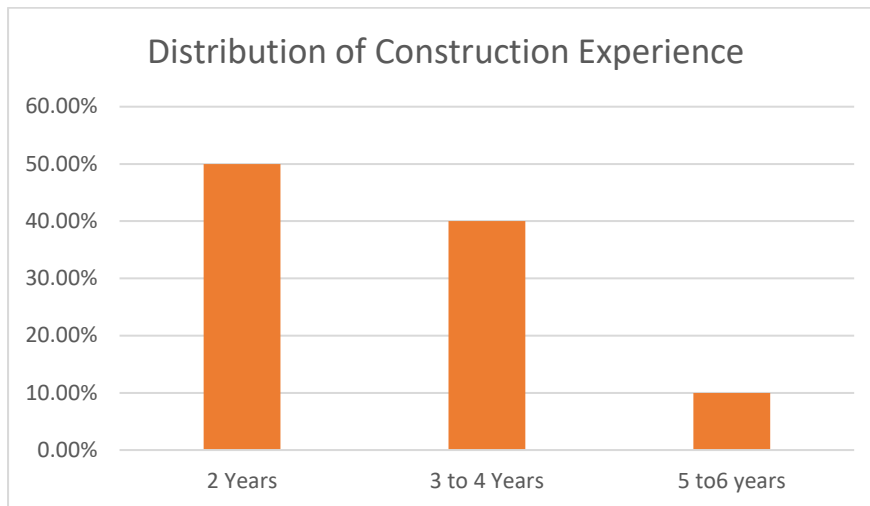


FIGURE 4.7: DISTRIBUTION OF CONSTRUCTION EXPERIENCE

The results from this section indicates that contractors incubated have varying skills level and educational backgrounds. It is also apparent that the minimum competence requirements were not observed.

4.3. Relevance of Classroom Training

The aim of this section was to determine the following:

- The relevance of the courses and the extent to which contractors are satisfied.
- The respondents' perception of the mentorship programme and its effectiveness.

4.3.1. Business Management

Figure 4.8 indicates that 40% of respondents strongly agree that business management related courses link to the needs of the businesses. Another 30% agreed that there was a link and the rest of the respondents were neutral whilst 15% disagreed. None of the respondents strongly disagreed.

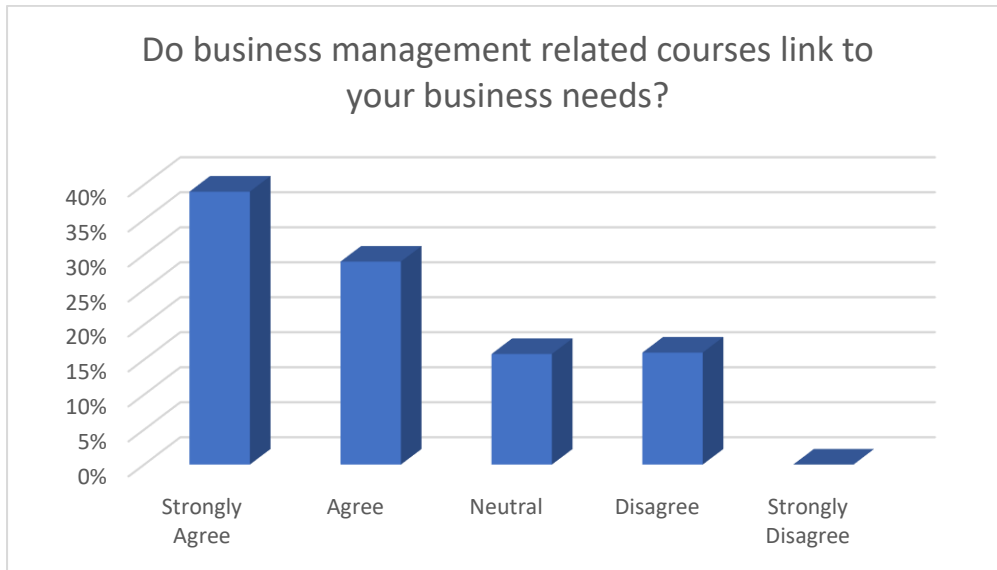


FIGURE 4.8: BUSINESS MANAGEMENT

4.3.2. Project Management

Table 4.9 indicates the extent that contractors were satisfied with the link between project management courses and its relevance to the business. Contractors that responded with strongly agree accounted for 50%, about 40% indicated that they agree. Only 10% recorded neutral, none of the respondent chose disagree and strongly disagree.

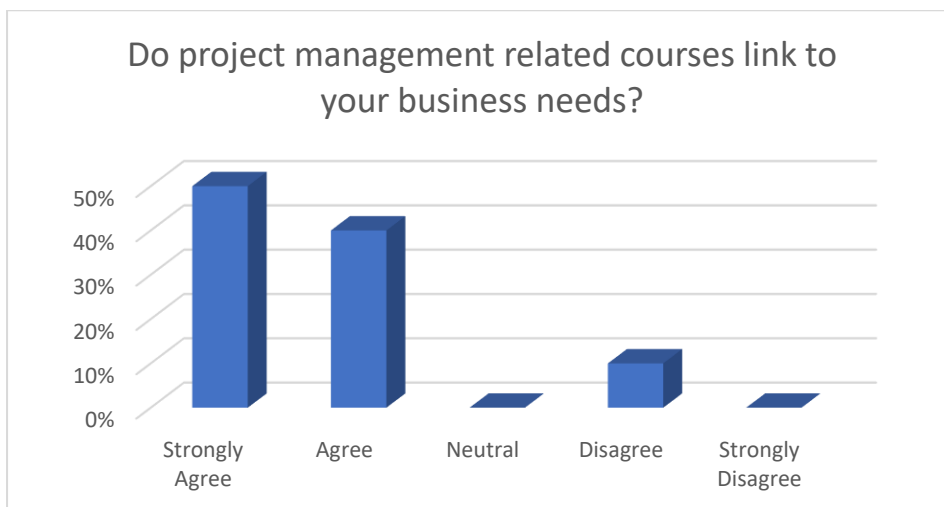


FIGURE 4.9: PROJECT MANAGEMENT

4.3.3. Legal Courses

Figure 4.10 shows that most contractors (45%) agreed that legal related courses were important and followed by strongly agree and disagree at 20%. Only 15% were neutral and none said strongly disagree.

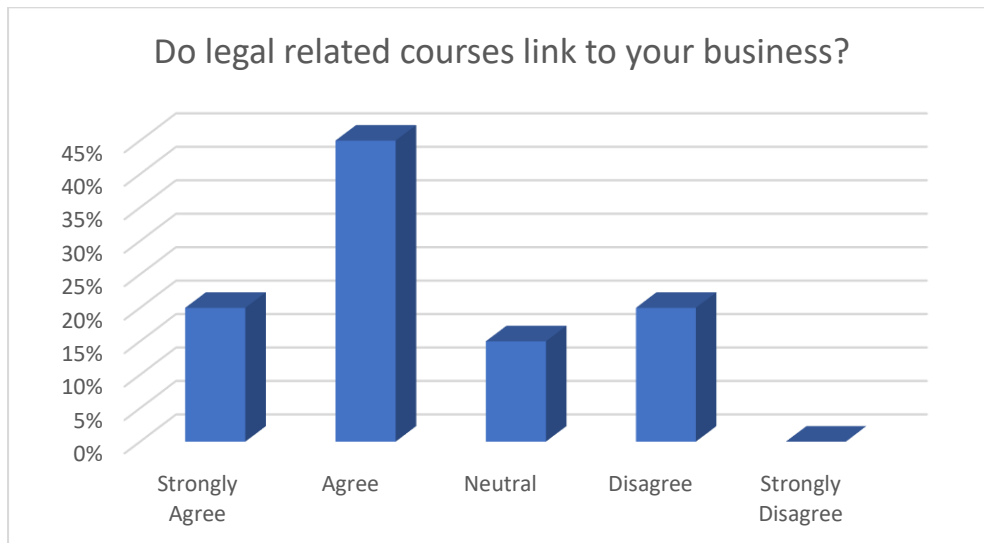


FIGURE 4.10: LEGAL ISSUES

4.3.4. Competency of Course Facilitators

Figure 4.11 shows that the majority (60%) of contractors agree that the training facilitators are competent. About 20% reported to strongly agree.

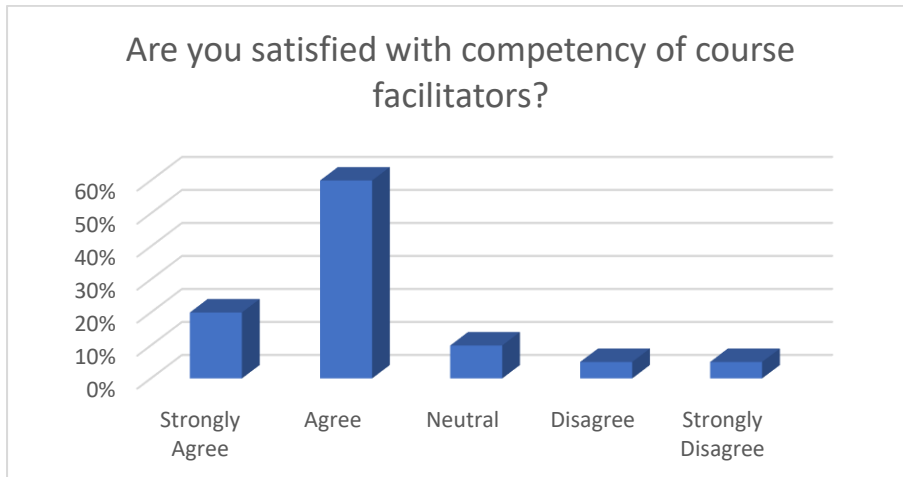


FIGURE 4.11: COMPETENCY OF COURSE FACILITATORS

4.4. Relevance of the Mentorship Programme

4.4.1. Role of Mentor

Figure 4.12 shows that 61% of contractors indicated that they strongly agreed that they understand the role of mentors, and 39% agreed.

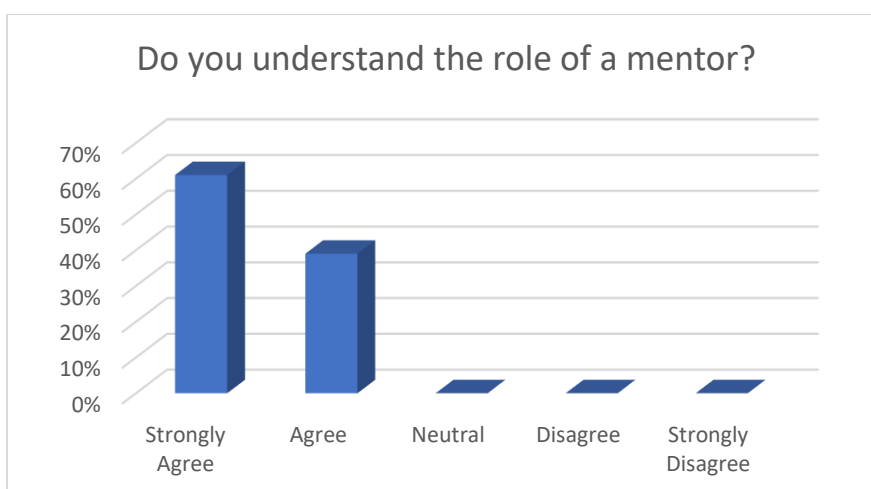


FIGURE 4.12: ROLE OF MENTOR

4.4.2. Benefit of Mentorship Programme

Figure 4.13 indicates that 41% of respondents feel strongly that they benefit from the programme, and about 18% said they agree. Only 29% disagreed and 8% remained neutral.

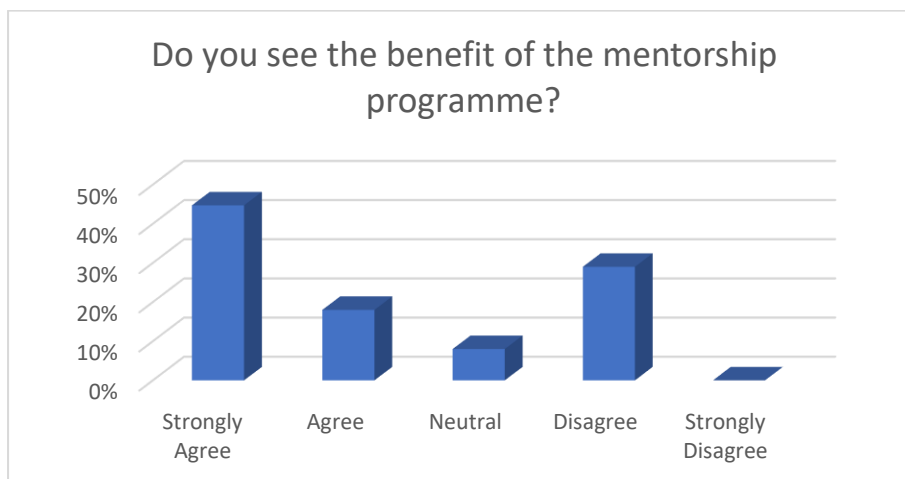


FIGURE 4.13: BENEFIT FROM MENTORSHIP

4.4.3. Availability of Mentor

Figure 4.14 exhibits that 50% of respondents strongly agree that the mentor is mostly available to give support. About 21% agreed that they receive the mentor's support, while 18% remained neutral and 11% disagreed.

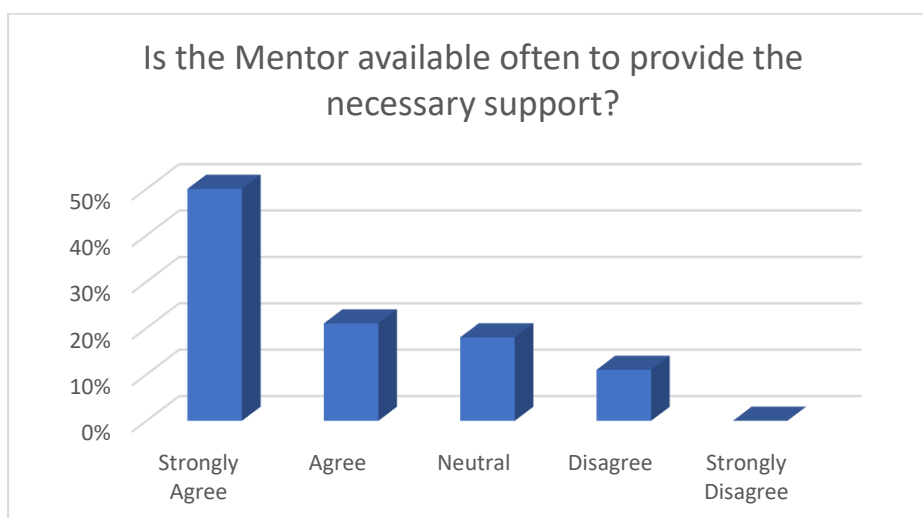


FIGURE 4.14: AVAILABILITY OF MENTOR

The results from this indicates in overall contractors are happy and satisfied with classroom training and mentorship.

4.5. Contractors' Performance

This section will determine the contractors' performance and challenges experienced by contractors. The impact will be measured by the change in financial capabilities, project performance and quality of work. The purpose of this objective is to uncover ways in which the programme can be improved.

4.5.1. Annual Turnover

Financial capability was evaluated against table 2.4, which indicates financial strength of the enterprise by historic turnover, value of last project and available capital to sustain the contract.

Figure 4.15 shows the financial capability of contractors. About 31% of contractors indicated that they strongly disagree that there has been any improvement in their annual turnover since joining the programme. There was an even distribution of 21% in answers between neutral and disagree, and 11% responded with agree. This implies that, either the annual turnover of most contractors remained the same as before joining the programme or it has worsened.

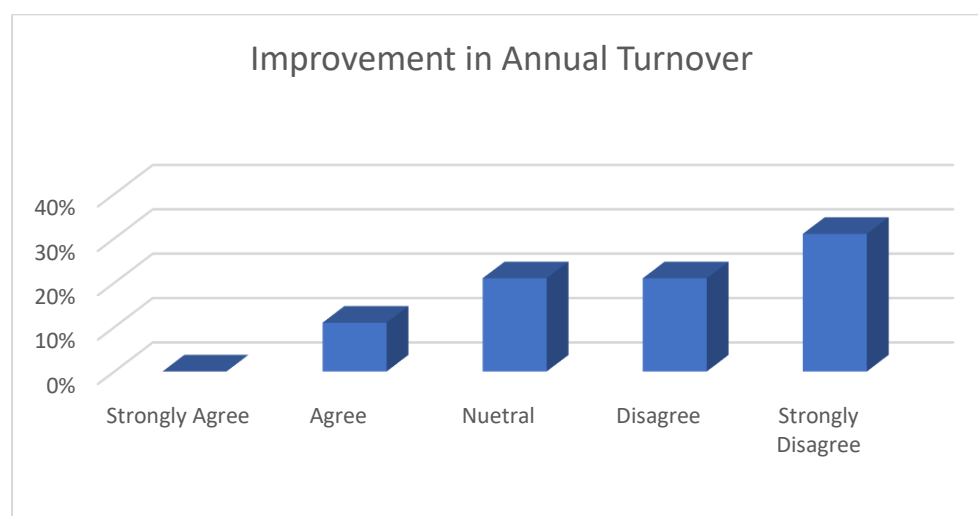


FIGURE 4.15: ANNUAL TURNOVER

4.5.2. Largest Single Contract

Figure 4.16 show that most respondents (45%) disagreed to have received projects that warrant an upgrade in the contractors grading. About 21% responded with strongly disagree, and only 11% agreed.

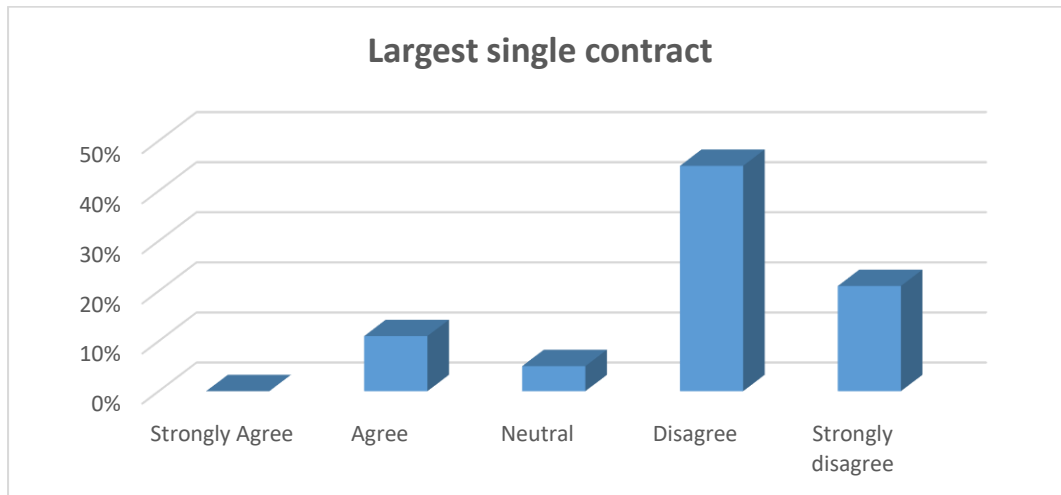


FIGURE 4.16: SINGLE LARGEST CONTRACT

4.5.3. Available Capital

Figure 4.17 indicates that most (61%) contractors strongly disagree to having sufficient capital at the bank. Furthermore, about 21% of contractors disagreed to have available capital. About 10% and 8% reported neutral and agree, respectively.

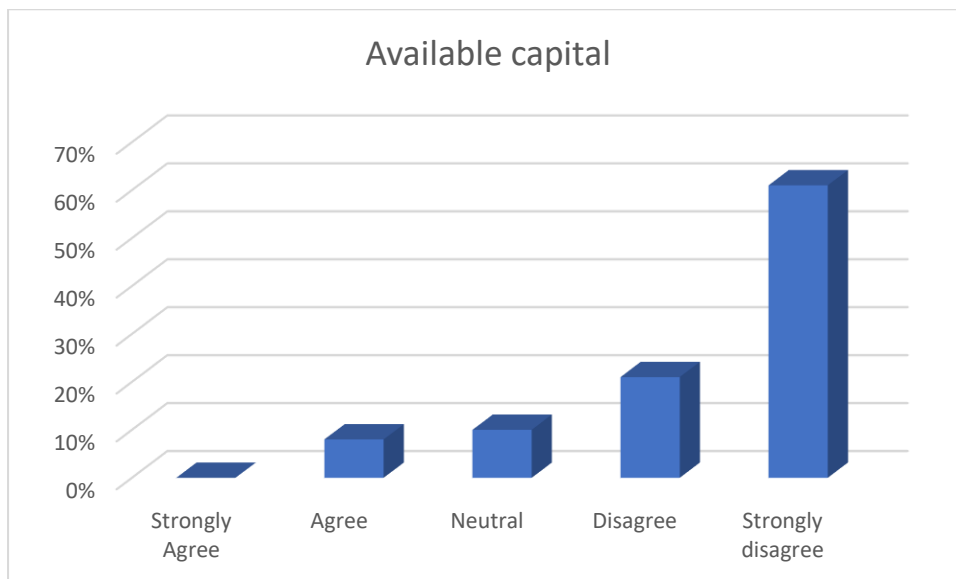


FIGURE 4.17: AVAILABLE CAPITAL

4.5.4. On-Time Delivery of Projects

Figure 4.18 shows performance by on-time delivery of projects, about 45% responded with strongly disagree and about 18% said disagreed. Responded who strongly agreed and agreed were 15% and 20%, respectively. The 2% remained neutral.

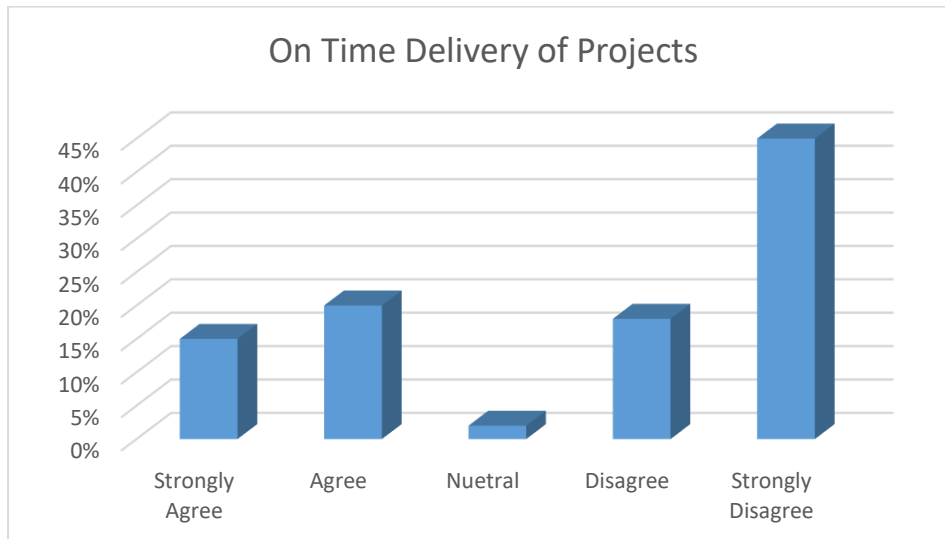


FIGURE 4.18: COMPLETING THE PROJECTS ON TIME

4.5.5. On-Budget Delivery of Projects

Figure 4.19 shows how contractors rated their answers on completing projects on-budget. The results indicate that most contractors, about 16% strongly disagree, 39 disagreed and 11% agree. The rest of the responded answered with neutral.

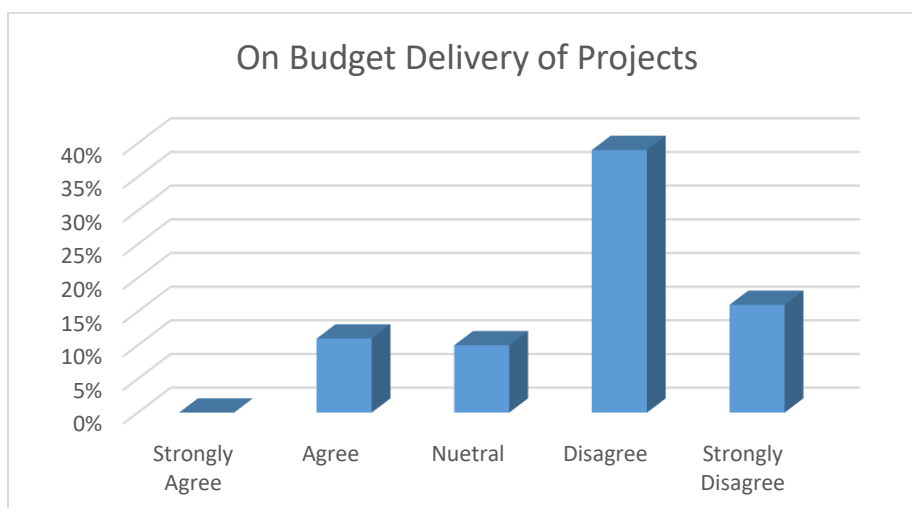


FIGURE 4.19: ON-BUDGET DELIVERY OF PROJECTS

4.5.6. Scope Creep

Figure 4.20 exhibits that most contractors (68%) have not been able to minimise scope creep. About 39% disagreed and 29% strongly disagreed, 21% of respondents agreed. The 11% remained neutral.

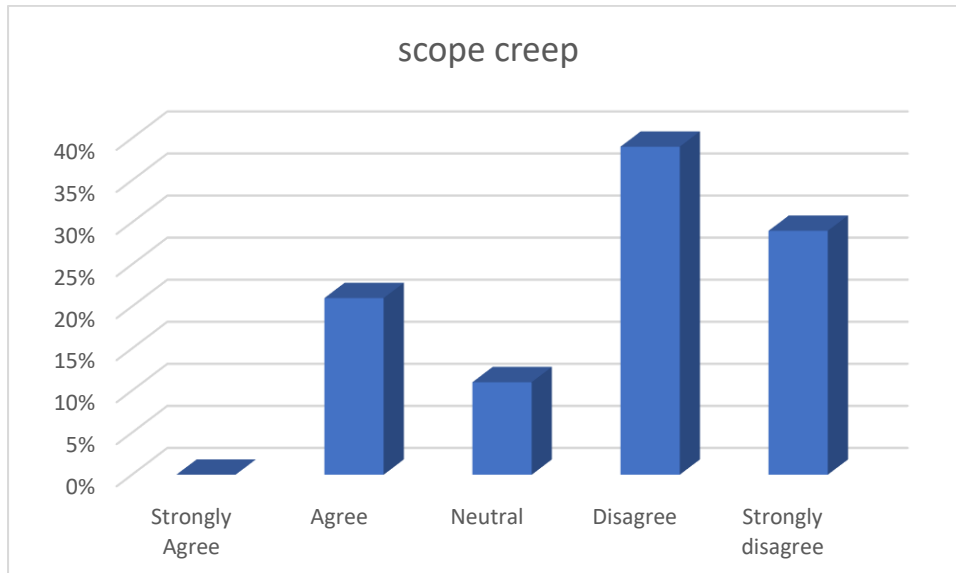


FIGURE 4.20: SCOPE CREEP

4.5.7. Quality of Tasks Completed

Figures 4.21 illustrated below the quality of tasks completed. About 29% of contractors agreed that they were able to finish within quality standards and another 29% disagreed. Respondents accounting for 21% said they strongly agree and 11% was neutral. Interestingly, the results vary in comparison to financial performance and project performance. The results in this instant are more positive than negative.



FIGURE 4.21: QUALITY OF TASKS COMPLETED

4.5.8. Achieving Deliverables

Results from figure 4.22 show that most contractors achieved deliverables, 26% strongly agreed and 29% agreed. The rest reported neutral and disagree.

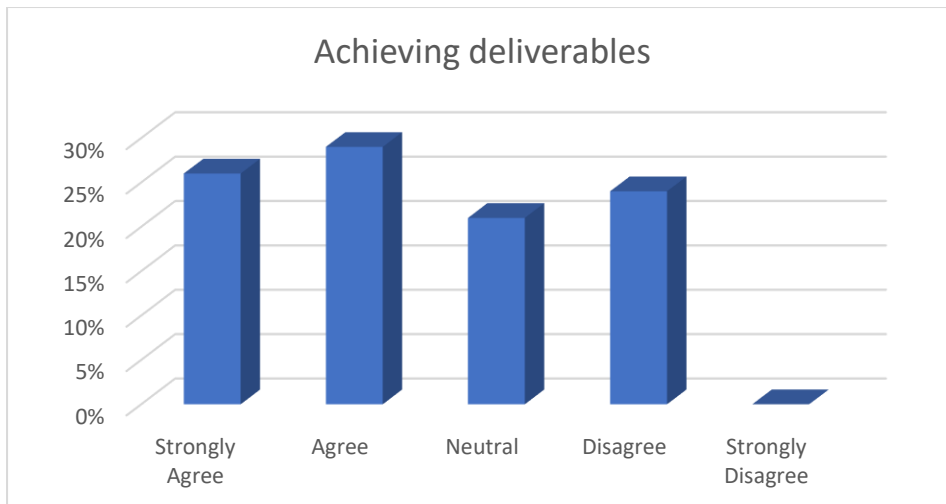


FIGURE 4.22: ACHIEVING DELIVERABLES

4.5.9. Interactions

Figure 4.23 results indicate that most contractors were communicating with different stakeholders in projects. About 44% respondents agreed, 26% strongly agreed. The least combined percentage of strongly disagree and disagree is 19%.

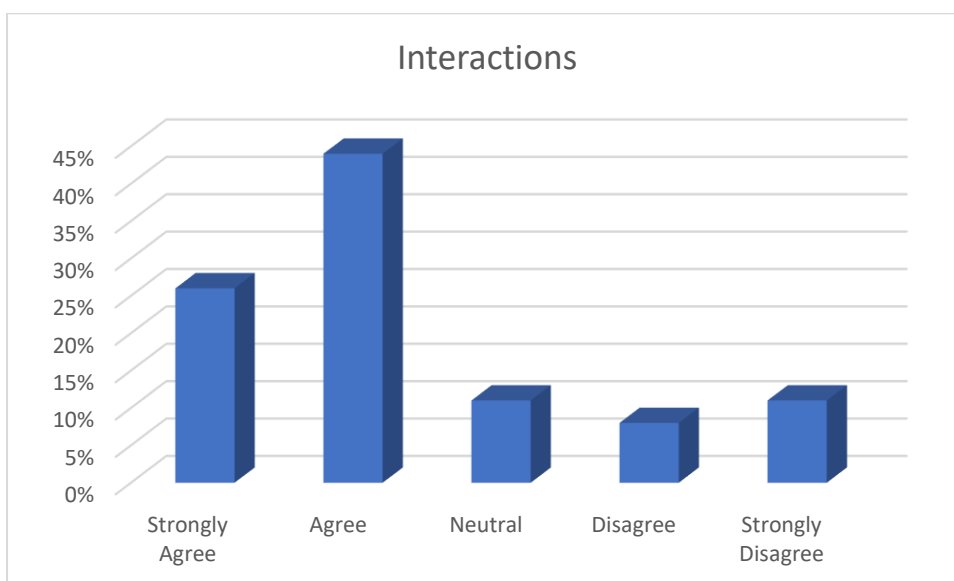


FIGURE 4.23: INTERACTIONS

The results for this section are justifiable as there are more grade 1 contractors and they do not require any capital to start a business or even join the INK programme.

4.6. Challenges Experienced by the Contractors

This section details barriers to achieving financial capability, project performance and quality. Understanding the drivers of failure and underperformance can assist in finding ways to improve the programme. Barriers offset the efforts of the programme and reduce the programme's ability to perform well.

4.6.1. Lack of Work Opportunities

Figure 4.24 presents that about 8% of respondents felt strongly that financially their development is hindered by lack of work opportunities. Only 11% remained neutral.

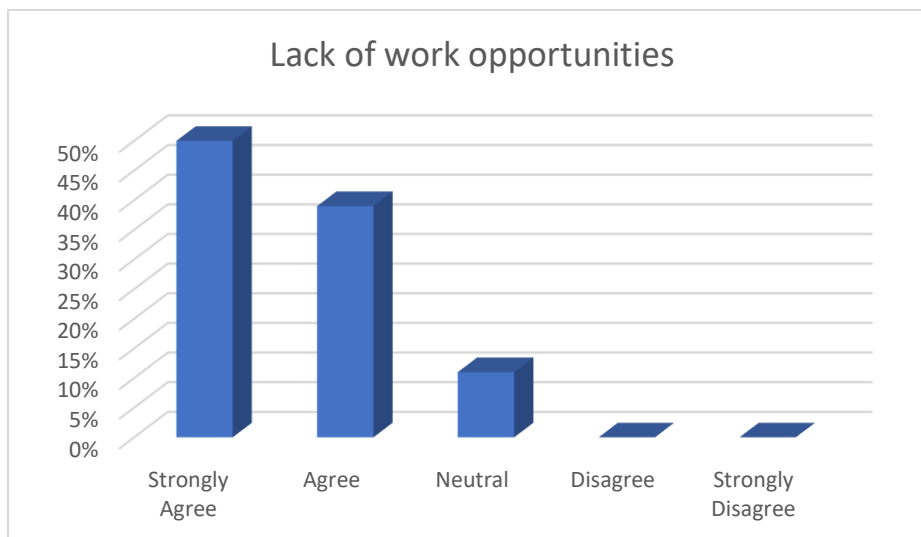


FIGURE 4.24: LACK OF WORK OPPORTUNITIES

4.6.2. Lack of Funding

Figure 4.25 shows that most respondents (95%) strongly agreed that it was difficult to receive funding. The remaining respondents (5%) also agreed.

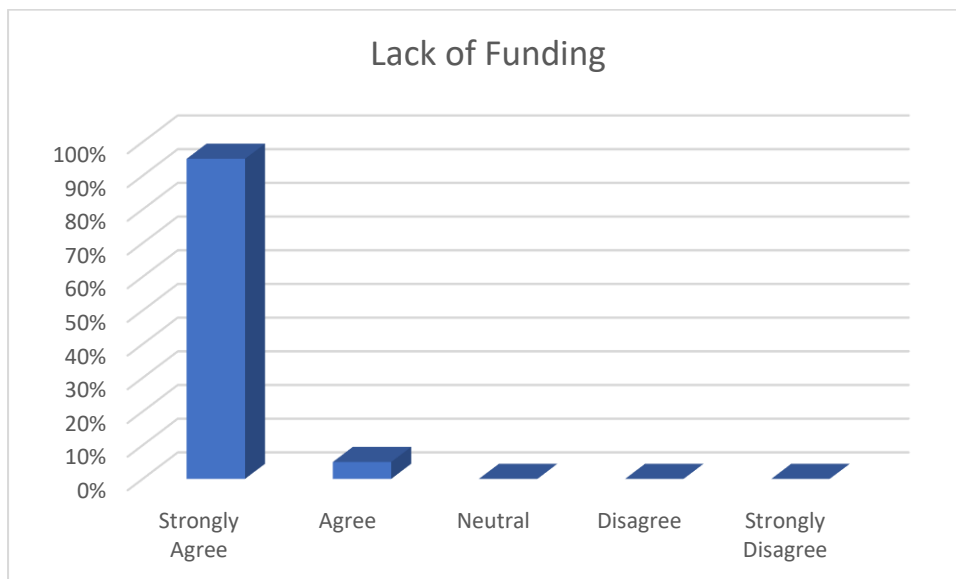


FIGURE 4.25: LACK OF FUNDING

4.6.3. Poor Regulation of the Industry

Figure 4.26 indicates 100% of respondents were unhappy with the regulation of the industry, of which, 79% responded with strongly agree and 21% with strongly agree. Contrators felt they are not receiving work because of the rise in business forums.

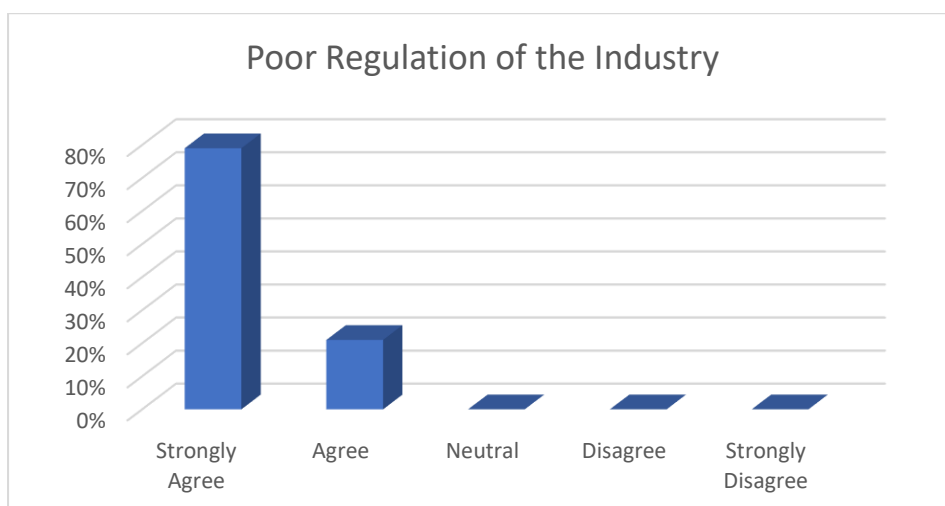


FIGURE 4.26: POOR REGULATION OF THE INDUSTRY

4.6.4. Lack of Skilled Labourer

Figure 4.27 indicates that 48% of contractors felt lack of skilled labour was contributing to contractor non-performance. Another 39% responded with neutral. About 13% of respondents disagreed with the statement.

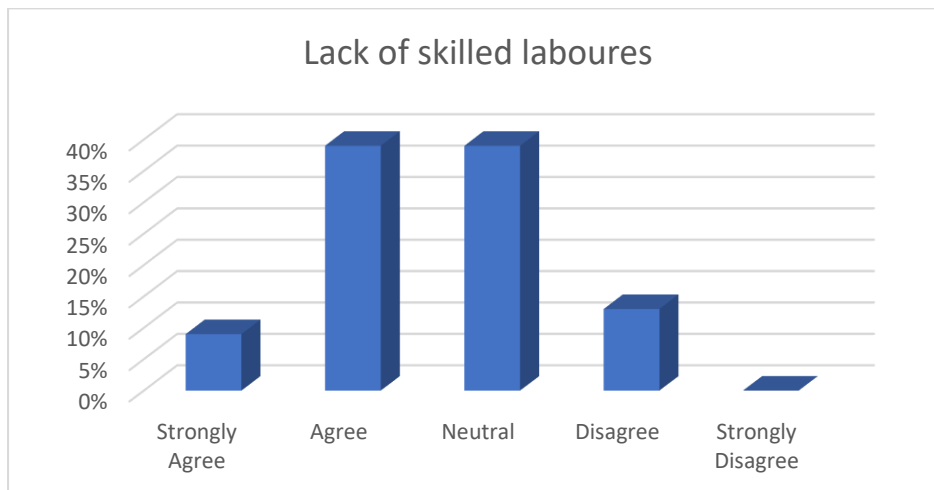


FIGURE 4.27: LACK OF SKILLED LABOURERS

4.6.5. Lack of Technical Skills

Figure 4.28 shows that lack of skills account for 60% and 32% remained neutral. Contractors who disagreed accounted for 8%. This is a contradictory to the results for training as contractors indicated classroom training is beneficial to them.

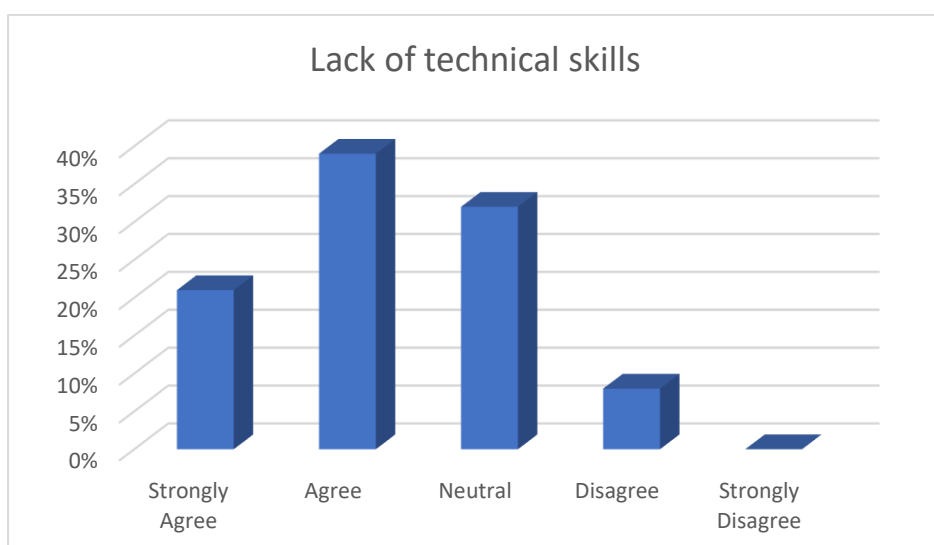


FIGURE 4.28: LACK OF TECHNICAL SKILLS

4.6.6. Lack of Plant

Figure 4.29 shows that most (71%) contractors were disadvantaged by lack of plant. About 29% remained neutral.

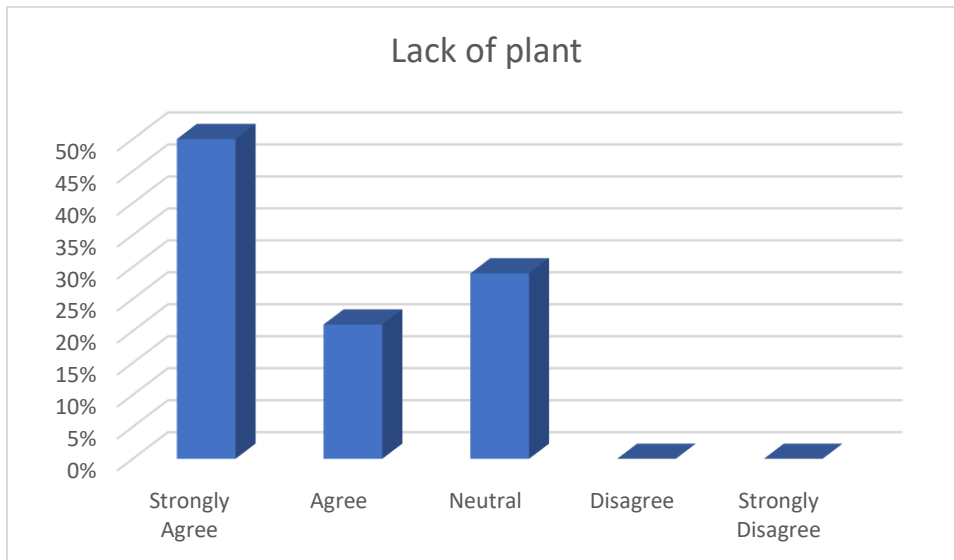


FIGURE 4.29: LACK OF PLANT

4.6.7. Time Control Deficiency

Figure 4.30 shows that 21% of contractors identified time control as a problem. The other respondents disagreed with this statement at 39% disagreeing and 31% stating they strongly disagree. Amongst the 7 factors evaluated, time control deficiency is the only item that contractors considered a non-factor.

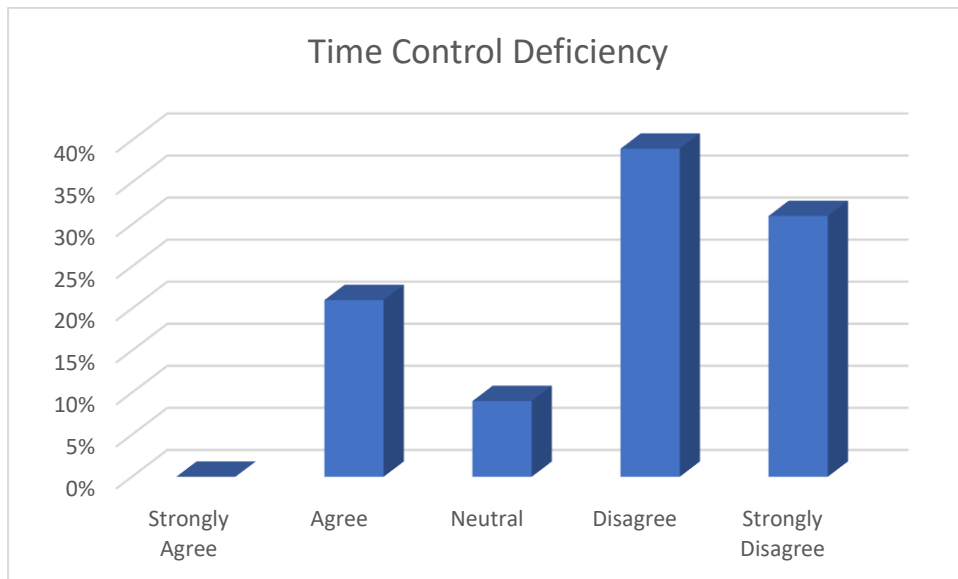


FIGURE 4.30: LACK OF TIME CONTROL

The findings indicate that respondents are negatively affected by lack of work opportunities, lack of funding, poor regulation of the industry, lack of skilled labour, lack of technical skills and lack of plant. Contractors indicated that they were able to control time.

4.7. Reliability Statistics of Challenges Impacting Contractor Development

The Cronbach's alpha was used in the reliability test to establish if the set of items were internally consistent. The Cronbach's alpha reliability co-efficient is described as acceptable when it is between $0.7 \leq \alpha < 0.8$.

Table 4.4 below shows the Cronbach's alpha for this research and the results are indicative of acceptable reliability.

TABLE 4.1: CRONBACH'S ALPHA RELIABILITY STATISTICS

| Cronbach's alpha reliability statistics | | |
|---|------------|-------------|
| Cronbach's Alpha | N of Items | Reliability |
| 0.772 | 23 | Acceptable |

There was a need throughout this research to focus on the objectives of the study. The success of the programme is measured by the number of contractor upgrades and NQF4 certificates. In order for contractors to achieve that, they need to exhibit positive growth in financial capability, performance and quality.

4.8. Discussion of Descriptive Analysis

There was a need throughout this research to focus on the objectives of the study. The success of the programme is measured by the number of contractor upgrades and NQF4 certificates. In order for contractors to achieve that, they need to exhibit positive growth in financial capability, performance and quality.

As discussed in section 2.10, the CDP places emphasis on competence criteria. The acceptance into the programme is based on CIDB grading, construction certificate and construction experience. As a bare minimum, contractors are required to have either NFQ4 construction management certificate or 3 years of construction experience, with a CIDB grading of 2. The CIDB formulated a rating system, which places more weight on experience than qualification.

Evidently, the INK programme has not observed the competence requirements. Graph 4.2 indicates that about 74% of contractors were grade 1 contractors. Inevitably, this questioned the competency of majority of respondents; the repercussion of incubating non-qualifying contractors could be poor programme performance (CIDB, 2015). Only about 26% of respondents were grade 2 and 3.

Interestingly, the median of personal experience was 6 years with a minimum of 2 years and the maximum of 35 years. This indicates that most contractors worked as employees before deciding to venture as contractors. Most contractors (50%) had 2 years of construction experience in the industry, and second to that was 41% of respondents with 3 to 4 years and lastly, 9% of respondents had between 5 to 6 years. These results align with the contractor grading, more than half of contractors were new contractors in the industry.

The response for type of education was split in half, 50% of respondents indicated they had the relevant construction management qualification, the other 50% has unrelated qualifications. Most respondents had certificates as their highest qualification at 38% and the second highest recorded qualification was matric certificate at 29%. About 28% of respondents had diplomas and the rest (5%) had basic education.

Taking into account all the items profiled, it can be concluded that the distribution of respondents is diverse. This is attributable to non-adherence of competence criteria. However, the outcomes are not peculiar; literature indicates that most CDPs allow admission to anyone. In a study of contractor effectiveness conducted in the Eastern Cape, the level of education expected of contractors was grade 10 (Mahlangu, 2018). Contractors were assessed on their literacy in order to ascertain their ability to interpret and understand the scope and requirements of the project.

There are split views concerning the competence criteria as a pre-requisite into the programme, or into the industry. The targeted groups and communities often do not have the experience nor the qualifications that are needed in the CDP. Furthermore, the idea of the programme was to facilitate growth within disadvantaged groups. There is a chance that specifying the minimum competence requirements there will not be qualifying contractors. The programme will be exclusive and the issue of skills gap will remain. However, the other end of the argument is that competent persons with a real chance of growth may be motivated to pursue construction. The non-exclusivity and corruption discourage technically qualifying people as they deem the industry poorly managed.

4.9. Role of Contractor Development Programme

There is a need for programme implementers to be interested in the performance of the programmes. The inputs of the programme affect change, or lack of, in emerging contractors. The researcher evaluated the extent to which contractors perceived classroom training and mentorship to be effective.

In the INK programme, the role of a mentor is to support the contractors in learning and development. The support includes planning of works, scheduling, filling in of tender documents, pricing, and obtaining contractual documents.

Some previous studies uncovered that SMMEs do not see the significance of training nor do they stress about it. According to Dladla and Mutambara (2018), small businesses do not recognize it as something that enhances their businesses; in fact, they see it as time or money consuming. Karmel and Cully (2009) found that it is mostly the low-level SMMEs, who are survivalist, that are not convinced of the positive impact of training.

However, the respondents from this research contrasted these findings. The respondents considered the provision of training is an important aspect in contractor development. Contractors stated that training linked to their business needs. Dladla and Mutambara (2018) echoed similar views in the study of effectiveness of Extended Public Works Programme; contractors expressed the importance of training and benefits associated with it. According to Manimala and Kumar (2012), training strengthens the internal capacity of SME's. The results from the programme indicate that training is relevant to business needs.

The response for mentorship was also mostly positive. Respondents felt that mentors are helpful in the development of contractors and agreed that they benefit from the mentorship programme. According to Ozgen and Baron (2007), mentors are useful to entrepreneurs as they often provide valuable input for development and opportunities for viable new ventures. The role of mentor has since increased with the complexity and innovative developments. Nkomo and Thwala (2014) noted that the construction industry has become highly competitive and the need for mentorship, training and development of workmen and professionals cannot be over-emphasised.

4.10. Challenges Experienced by Contractors

The challenges facing construction practice are increasingly growing at an alarming rate (Okoye, Ngwu and Ugochukwu, 2015). Much research has been invested in the sustainability of the construction industry. Some of the studies focused on developing frameworks that can be implemented for sustainability whereas others investigated potential factors hindering contractor development. Tayeh et. al. (2019), evaluated the significance levels of drivers of and barriers to sustainability of emerging contractor programmes. The results showed that contractors were performing poorly due to market drivers, client inconsistencies and contractor inadequacies. The difficulties identified, amongst others, were lack of procuring work

consistently, no access to funding, shortages of skilled labour, lack of access to plant, technical and managerial deficiencies, lack of understanding of basic site management, and poor financial management.

In the INK programme, contractors indicated that they encountered the following challenges; lack of work opportunities, lack of funding, poor regulation of the industry, lack of skilled labourers, lack of technical skills and lack of plant. These hindrances neutralize the efforts of the programme as respondents have not been able to improve their financial capabilities, project performance and quality. Ultimately, these results suggest that the programme cannot offer sustainable growth without minimising these factors.

4.10.1. Difficulties associated with personal inadequacies of contractors

The lack of contractor adequacy has been recognised as one of the major constraints in construction, and it is the very thing that the INK programme is trying to improve. The South African construction industry has an open policy; emerging contractors without the relevant qualification are allowed to enter into the market. Lack of education and managerial background are largely responsible for contractors' inability to plan and manage projects (Allopi and Ntuli, 2013). Consequently, this contributes to the over spend by contractors.

In the long term, most of emerging contractors stay stagnant or leave the industry. Unfortunately, these small contractors fail to plan for their growth, such as detailing in plans how they will expand. Furthermore, according to (Muzondo, 2015), contractors fail because they cannot stick by company policies and save money. Many squandered the mobilisation advances granted to them on government contracts on frivolous things, such as new expensive cars or houses, even before work started on site. Moreover, there is lack of good work organisation as well as effective planning and utilisation of resources on construction sites.

Contractors in the INK programme also indicated that they lack technical skills. According to Mohlala (2015), in a study testing the relationship between contractor performance and technical skills, the results showed that there is a significant relationship. In the complex and dynamic construction environment, it is fundamental for contractors to have a strong technical foundation. Investing in the company's key personnel development can yield returns.

4.10.2. Difficulties associated with Client Inconsistencies

According to Adams (1995), delays in payments by clients is common in Nigeria. Similar sentiments were shared by Lazarus (2007), about the South African market. Unfortunately, the delays negatively affect contractors' cash flow and their ability to complete the work within time, in other cases, within budget.

Another challenge is the unfeasible timelines, inadequate project duration has been identified as a major problem. Contractors fail to meet the specified targeted dates and get penalised as a result (Muzondo, 2015). Most of the time contractors do not challenge these time estimations as they do not want to jeopardise their chances of getting employment in the future.

In additions, the terms of contract often favour the client and forces contractors to comply. These discrepancies and inconsistencies in documentation cause major cost and time over-run (Akali and Sakaja, 2018). The issue of poor documentation is further escalated by inadequate contract management by client representatives, delaying inspections and measuring of work in preparation for interim payment certificates.

4.10.3. Difficulties associated with the Construction Market

The construction industry is heavily influenced by the economic fluctuations. By virtue, the industry is capital-intensive and relies on investments and government spending for it to thrive. The South African construction industry is over-dependent on public clients and the decline in the government spending forces contractors into liquidation. Increased competition and inactiveness of the market has resulted in few or no jobs for most of contractors.

The decline in the market has resulted in poor regulation of the market. There has been a rise in corrupt activities, such as contractors getting work through fraudulent and criminal means (Hadebe, 2017). Fraudulent practices and kickbacks that have been identified as major problems include "business forums" and corruption. Business forums are notorious for securing work by using violence and intimidation, of which has cost money and delays to clients. This unfair competition has resulted in many contractors exiting the industry (WBHO,

2019). The situation deprives many competent contractors of access to work. Moreover, the training and mentoring becomes ineffective when emerging contractors cannot secure continuous work. The contractors are unable to harness their abilities and skills.

In a country with a big economic gap it is expected that small enterprises may be excluded from economic participation. The construction industry is capital intensive which forces contractors to rely on funding as a means to be financially afloat. However, lack of collateral has proven to be a problem for emerging contractors. This is further worsened by the lack of work opportunities and as a result contractors fail to create employment records.

Another challenge posed by funding is the inability to purchase plant and equipment. Most contractors end up leasing the required plant even though this is not the favourable option. The availability and conditions of the plant and equipment can cause delays and cost over-run.

Lack of capital means that contractors cannot afford the basic equipment and plant required to undertake major projects. Unfortunately, plant and equipment hire and leasing facilities are either grossly inadequate or unavailable in many areas. The precarious nature of the construction business, especially access to regular jobs to amortise investment, also makes equipment ownership unattractive.

Another challenge that was identified was the lack of skilled labours. The industry relies on manpower, and as such, the quality of the work is dependent on the level of skill sets. Unfortunately, contractors compete with government owned enterprises in terms of job security and remuneration. Better pay has been the cause for many employee protests, which often leave the contractor in financial woes.

4.11. Measures for Contractor Performance

4.11.1. Financial Capability

According to Akali and Sakaja (2018), financial capacity is a resource that every contractor should have for an easy execution of a project. Financial capacity is composed of credit, liquid cash, overdraft and invoiced amount. Skilled resources are required to manage, plan, source,

and control the use of finance. In construction, factors affecting financial stability of projects include “delays in honouring certificates”, difficulty in obtaining loans due to hefty collateral requirements and inability to save, in the ranking order (Ofori et. al., 2017). Having a positive cash flow ensures successful project execution without incurring delays and budget overrun.

For a contractor to be considered as financially stable, the CDP requires that the contractor must meet certain financial performance measures such as annual turnover, available budget and value of single largest contract. This research sought to ascertain the extent to which contractors were financially capable. This financial measure, to some degree, indicates the capability of the contractor to carry out a project without requiring financial assistance.

It was concluded that contractors in the programme are not financially stable. This research revealed that contractors do not have a good financial standing. About 52% of respondents are not achieving the annual turnover stipulated by the programme. The survey further revealed that 66% of contractors have not done work that is of significant value and about 82% indicated that did not have sufficient capital in the bank.

4.11.2. Project Performance

There are a number of measurement methods that can be used to assess project performance, such as technical, commercial and overall performance (Takim and Akintoye, 2002). Tan (1996) indicated that projects all over the world have one thing in common in that they always go wrong. Although this assertion is debatable, it is usual for a construction project to have a tremendous amount of cost over-run and a substantial time delay. The effective performance of a contractor is, therefore, vital to the success of any construction project. According to Xiao et al, (2000), a contractor's performance should focus on budget, on time and to the level of quality required.

This research indicated that about 55% of contractors have not been able to reduce over-run costs, but interestingly, most (63%) contractors indicated they are able to deliver projects on time. This implies that time over-run does not proportionally affect cost over-run, in fact, this asserts that contractors fail to budget or/and manage finances.

4.11.3. Quality of Work

In construction, quality of work is detailed in the specifications set in the contract document. It is achieved by testing of materials and application according to specifications. Ultimately, the different tasks ensure the product is of good quality. Another aspect of quality is how beneficiaries see the construction product, which is reliant on workmanship. Workmanship is gained over time through continuous work. Over and above that, knowledge in planning, execution, supervision and management of the project play an important role. Windapo (2016) demonstrated South Africa does not have a shortage of labour, but there is a skills shortage. This was noted amongst tradesmen whose professions were more technical and required formal training and certification. The study suggested that the lack of high-quality education was a contributing factor to poor quality.

With regard to the INK programme, more contractors indicated that they were not able to produce quality work without reworks. Even though contractors indicated that the training was beneficial, these findings indicate that there is a need for physical training. About 85% participants indicated that they had to rework the job to meet quality.

4.12. Chapter Summary

Literature shows that programmes are not effective and that there is room for improvement of the framework. It is particularly important to ensure they succeed because they use public funds.

The findings show that there is disconnect between training and performance of contractors. Unfortunately, in South Africa, very little work has been done to understand the effectiveness of CDPs and address the areas of concern. This research was done with the aim to provide recommendations for improvement.

5 CHAPTER FIVE: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1. Introduction

The aim of this chapter is to conclude and provide recommendations that can be used to improve contractor capacity, project performance and quality of work. This chapter will conclude based on the findings in chapter 4. It will also provide implications of the research, limitations of the study and conclusion.

5.2. Conclusion in terms of Literature Review

McCutcheon and Croswell (2001) further stated that the challenges facing emerging contractors who participate in the contractor development programme, are, inter alia, capital and expertise such as entrepreneurial, managerial, technical and administrative skills. According to CIDB (2009), the contractor development programme was developed following an identified compelling need to unlock growth constraints, to develop sustainable contracting capacity and to elevate enterprise development of previously disadvantaged individuals.

Summarily, the literature indicates that the programmes are failing to address the challenges facing contractors, the CDP is not beneficial to small contractors. In a study by Hadebe (2017), the respondents were not satisfied with the benefits of participating in the contractor development programme including their actual performance, growth and development, training and effectiveness of communication about the programme itself. The findings indicated poor satisfaction with benefits of the programme. Moreover, CIDB (2011) found that programmes fail to meet their objectives due implementation and institutional incapacibilities.

5.3. Conclusion in terms of Empirical Study

The findings of this research assert that the CDPs are ineffective. The results showed that the that contractors face challenges that impede their development. The findings based on the research objectives are as follows:

- In terms of education, the programme was beneficial to the intended recipients. According to the respondents, the training linked to the business needs.
- Respondents also shared similar views about the mentorship programme, the results were mostly positive. Respondents were satisfied with the type of support they received and the degree to which the mentor was involved.

-
- When it comes to the development of contractors, the results were mostly negative. The results showed that contractors failed to improve in financial stability, project performance and quality of work. The lack of impact can be attributable to factors beyond the control of the programme.
 - Respondents indicated that contractors had challenges with work opportunities, funding and market regulation.
 - Unfortunately, efforts by the CDP are only marginally successful if they are not supported by practise.

5.4. Implications of this Research

The contractor development programme was created to unlock the industry to emerging contractors and ensure the programme eliminates growth constraints. This research has identified problems that would facilitate policy improvement at various level of government.

5.4.1. Firmer Regulation of the Market

One of the primary reasons mentioned by contractors as a hindrance was the rise of business forums. In the recent years, there has been an increasing need for government to find ways of managing business forums in the construction space. In KwaZulu-Natal business forums have been notorious for causing work stoppages in order to get work packages (Venter, 2018). This is an illegal and punishable offence, but government institutions have not been able to curb this new trend (WBHO, 2018). This has now created an anti-competitive market environment.

The government in partnership with statutory bodies, such as the CIDB, the Engineering Council of South Africa (ECSA), and the South African Council for Project and Construction Management Professions (SACPCMP), should find ways of ensuring fairness and inclusivity in the SMME industry. One of the functions of CIDB is to develop the emerging sector and oversee industry transformation (CIDB, n.d).

5.4.2. Inclusion of Personal Experience in Competence Criteria

It is recommended that the inclusion of personal experience in competence criteria be studied further. This study showed that contractors who had key personnel with more than 5 years of work experience were more competitive. In a study conducted in the United States of America for causes of failure of new firms, lack of experience in line with the business was one of the four major causes (U.S. Department of Labour, 2011: CIDB, 2015).

5.4.3. Influx Control

Lack of work opportunities is one of the major challenges in the development of emerging contractors (CIDB, 2018). The latest statistics show that there are more contractors than there are work opportunities. The budget set aside by National Treasury does not match the number of contractors, furthermore, the gdp has been suffering due to inactivity in the industry (SEDA, 2018). Unfortunately, the lack of work has led to many programmes becoming job creation programmes, contractors receive work occasionally and leave the business (CIDB, 2011).

Furthermore, the non-exclusivity in the construction industry adds to the influx and poor control of the industry (Muzondo, 2015). Technical skills, such as civil engineering, should be used as a control measure. In a study conducted by Muzondo (2015), contractors with technical qualifications performed better than contractors who had non-related qualifications. By doing so, this will have a two-fold benefit, influx control or performance improvement.

5.4.4. Technical Development

According to Martin and Root (2010), one of the reasons contractors fail before they are fully developed is the lack of knowledge and experience. Contractors who do not have the relevant education and experience should be supplemented by interventions of the CIDB and other training institutes in order to develop their technical knowledge. Ideally, persons who wish to start contracting firms should first acquire higher education or tertiary qualifications, especially the technical fields. Practical training as artisans and technicians would be more advantageous to contractors because construction is more practically based than theory based.

5.4.5. Proper identification participants

The aim of the programme is to transform the construction industry to be more inclusive of previously disadvantaged groups by incubating promising emerging contractors. However, it is important that participants are selected not only based on their social status, but on competence as well. Competence plays a critical role in the success of emerging contractors and this research affirms that. Contractors who had the necessary competence were able to improve in developmental areas. Mavetera et. al. (2015) found a similar association, contractors without the knowledge and skills in civil engineering were failing to complete projects within scheduled time and budget, there was scope creep and the quality of work was poor.

It is therefore important that programmes follow proper identification of participants, this can potentially increase the number of contractors who perform well in the programmes. The CIDB minimum requirements for competence should be applied. In a study by Hadebe (2017) and CIDB (2011), it was found that programmes do not use the selection criteria, and in both studies the results showed that the programme was performing poorly. This study yielded similar findings.

5.4.6. Ring-fencing of Projects

Ncwadi and Dangalazana (2006) noted a sharp decline in employment and fixed investment over a period of 20 years. As a result the industry suffered low productivity, poor quality and low profit margins. To date, the industry is reported to be struggling economically, with a 4% contribution towards the country's economy. It is therefore worrying to expect incubated contractors to secure work independently when there is scarcity of work opportunities. This works against what the programmes are trying to achieve, which is to provide opportunities.

The programmes, in partnership with government should explore ring-fencing projects for the programme. As it was alluded in chapter 2, training without practical application is futile. Contractors need work to improve their skills and performance.

5.4.7. Funding for Emerging Contractors

In a comparative study of problems facing small building contractors in Nigeria and South Africa by Mafimidiwo and Iyagba (2015), the major problem in contractor development was lack of access to funding. The financial institutions deem it risky to finance emerging contractors. In addition, even when the contractor qualifies for funding they are charged exorbitant interest rates and too much is required from them as collateral.

In 2011, CIDB proposed a funding model for emerging contractors. The model placed reliance on projects rather than the financial position of contractors. The financial institutions were going to assess possible returns from projects and fund the projects based on that. Functionality was going to take precedent and contractors were going to be assessed on their capacity to take on those projects. The funding model was never piloted, and there is no research that shows it was explored in detail. However, in a different study but of similar nature, a study conducted by Chummun and Bisschoff (2017), on insurance for low income earners it was proven there is viable business in micro-insurance. CIDB and financial institutions can look at applying the same concept of micro-insurance but for emerging contractors. Chiang, Leung and Tand (2001), asserts that in order for the industry to improve the government should be involved in creating for investment protection and insurance plans.

5.5. Limitations

This research relied on the truthfulness of emerging contractors of respondents but the study can be improved by obtaining company information from previous employers, professional bodies, and the banks. It can be expected that contractors may feel uncomfortable disclosing financial and business performance questions, and they may not respond truthfully.

Another limitation of the study was the sample size, a larger sample size should be considered in the extension of this research. This can be achieved through including other programmes that may exist in the INK area or around Durban.

And lastly, this study can be improved by using a validated instrument. The type of research approach may even employ a qualitative approach for the study.

5.6. Suggestions for Future Research

The information collected and analysed in this research will be the basis for the recommendations. The researchable areas will address the gaps that currently exist in the contractor development programme. Additional studies will build forth on the existing literature. The focus should be more the selection process and the policy-implementation gaps. This will, to some degree, control the influx and will increase the success rate of the programme. Moreover,

- Conducting studies of similar nature but covering a broader scope will highlight whether the non-performance of the programme is a widespread challenge. The results from the research will feed to necessary departments to allow change.
- There is a need to research about opportunistic contractors. This is an area worth exploring as contractors who are in the industry for a short term, to fulfil specific needs, disadvantage the industry for contractors who are ambitious.
- Another study could look at the special needs contractors and labours. This research would analyse if there are challenges posed by their disabilities.
- There should be a study focusing on the role statutory bodies play in ensuring the programme works, at present the existing research shows failure of the contractor development programme but there has not been changes made by the relevant structures.
- A comparison study between contractors in the CDP and the mainstream is vital. The research would highlight whether there is any benefit in being incubated.
- Researchers could analyse the impact of criminal activities of CDP performance.

5.7. Chapter Summary

In this chapter, it was deduced that the contractors in the INK contractor development encounter challenges that delay the contractors from progressing. There were deficiencies in the mandatory selection of contractors and ring-fencing of work. The CDP framework can be revisited to address these issues. This chapter further summarised the findings of this research and highlighted the limitation. The implications of the study were detailed and drew attention on relevant policies. Recommendations for the extension and improvement were discussed.

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APPENDICES

INFORMED CONSENT FORM

Information Sheet and Consent to Participate in Research

Date:

Greetings;

I appreciate your participation.

My name is Mbalenhle Thusi from eThekweni Municipality. I am conducting research for my MBA fulfillment through the University of KwaZulu-Natal. The purpose of the study is to evaluate the effectiveness of the Contractor Development Programme in the INK (Inanda,

Ntuzuma and KwaMashu) area, in Durban. With this survey I am seeking to understand the opinions and perceptions of contractors who are enrolled in the contractor development programme and those who have exited. The duration of your participation will take about 20 minutes.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number_____).

In the event of any problems or concerns/questions you may contact the researcher at 207504692@stu.ukzn.ac.za or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

CONSENT

I (Name)_____ have been informed about the study entitled (provide details) by (provide name of researcher/fieldworker).

I understand the purpose and procedures of the study (add these again if appropriate).

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I understand that I may decide not to proceed with this questionnaire should I feel uncomfortable or violated.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at 207504692@stu.ukzn.ac.za.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview YES / NO

Signature of Participant

Date

Signature of Witness

Date

(Where applicable)

EVALUATING CONTRACTOR ATTITUDES AND PERCEPTIONS ABOUT THE CONTRACTOR DEVELOPMENT PROGRAMME

1. SCREENING QUESTIONS

1.1.What is your gender?

- Male
- Female

1.2.What qualification do you hold?

- Master's Degree
- Honours/BTech/BSc
- Diploma
- Certificate
- Matriculation Certificate
- Basic Education

-
- No Educational Qualifications

1.3.What is your field of study?

- Business Management
- Other (Please specify) _____

1.4.How many years of personal experience in the construction industry do you have?

- 1 year (max)
- 2 years (max)
- 3 years (min)
- More (Please specify) _____

1.5.What is the current CIDB grading status of your company?

- 1 (one)
- 2 (two)
- 3 (three)
- 4 (four)
- 5 (five)
- 6 (six) or above

1.6.What was your CIDB grading status when you joined the programme?

- 1 (one)
- 2 (two)
- 3 (three)
- 4 (four)
- 5 (five)
- 6 (six) or above

Objective 1

2.1.CLASSROOM TRAINING

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|-----------------------|--------------|----------------|-----------------|--------------------------|
| Is the business management course applicable to your business? | 1 | 2 | 3 | 4 | 5 |
| Is the project management course applicable to your business? | 1 | 2 | 3 | 4 | 5 |
| Is the contract law course applicable to your business? | 1 | 2 | 3 | 4 | 5 |
| Competency of Course Facilitator? | 1 | 2 | 3 | 4 | 5 |

2.2.MENTORSHIP

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|-----------------------|--------------|----------------|-----------------|--------------------------|
| Do you understand the role of a mentor? | 1 | 2 | 3 | 4 | 5 |
| Do you see the benefit of the mentorship programme? | 1 | 2 | 3 | 4 | 5 |
| Are you satisfied with the mentor? | 1 | 2 | 3 | 4 | 5 |

3.1. FINANCIAL STABILITY

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|-----------------------|--------------|----------------|-----------------|--------------------------|
| Has your company improved its financial annual turnover? | 1 | 2 | 3 | 4 | 5 |

| | | | | | |
|--|---|---|---|---|---|
| Was the value of your largest single contract appropriate to your contractor grading? | 1 | 2 | 3 | 4 | 5 |
| Is the available capital appropriate for your contractor grading? | 1 | 2 | 3 | 4 | 5 |

3.2.PERFORMANCE

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|-----------------------|--------------|----------------|-----------------|--------------------------|
| Has your company improved its on time delivery of projects? | 1 | 2 | 3 | 4 | 5 |
| Has your company improved its on-budget delivery of projects? | 1 | 2 | 3 | 4 | 5 |
| Has your company reduced its scope creep? | 1 | 2 | 3 | 4 | 5 |

3.3.QUALITY OF WORK

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|-----------------------------------|-----------------------|--------------|----------------|-----------------|--------------------------|
| Quality of tasks completed | 1 | 2 | 3 | 4 | 5 |
| Achieving deliverables | 1 | 2 | 3 | 4 | 5 |
| Interactions | 1 | 2 | 3 | 4 | 5 |

4.1.CHALLENGES

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|-----------------------|--------------|----------------|-----------------|--------------------------|
|--|-----------------------|--------------|----------------|-----------------|--------------------------|

| | | | | | |
|--|---|---|---|---|---|
| Lack of work opportunities | 1 | 2 | 3 | 4 | 5 |
| Lack of Funding | 1 | 2 | 3 | 4 | 5 |
| Poor Regulation of the Industry | 1 | 2 | 3 | 4 | 5 |
| Lack of Skilled Labour | 1 | 2 | 3 | 4 | 5 |
| Lack of Technical Skills | 1 | 2 | 3 | 4 | 5 |
| Lack of Plant | 1 | 2 | 3 | 4 | 5 |
| Lack of Time Control | 1 | 2 | 3 | 4 | 5 |

Thank you very much for taking the time to complete our survey. Your participation will help us to understand the attitudes and opinions of contractors regarding SCI.



28 September 2020

Miss Mbalenhle Thusi (207504692)
Grad School Of Bus & Leadership
Westville Campus

Dear Miss Thusi,

Protocol reference number: HSSREC/00000214/2019

New Project title: Investigating the Effectiveness of the Contractor Development Programme in Road Construction Projects in the INK Area (Inanda, Ntuzuma, Kwamashu), Durban.

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 17 September 2020 has now been approved as follows:

- Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

Best wishes for the successful completion of your research protocol.

Yours faithfully



.....
Professor Dipane Hlalele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: <http://research.ukzn.ac.za/Research-Ethics/>

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INSPIRING GREATNESS

MBA Dissertation

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